

FIG. 1A

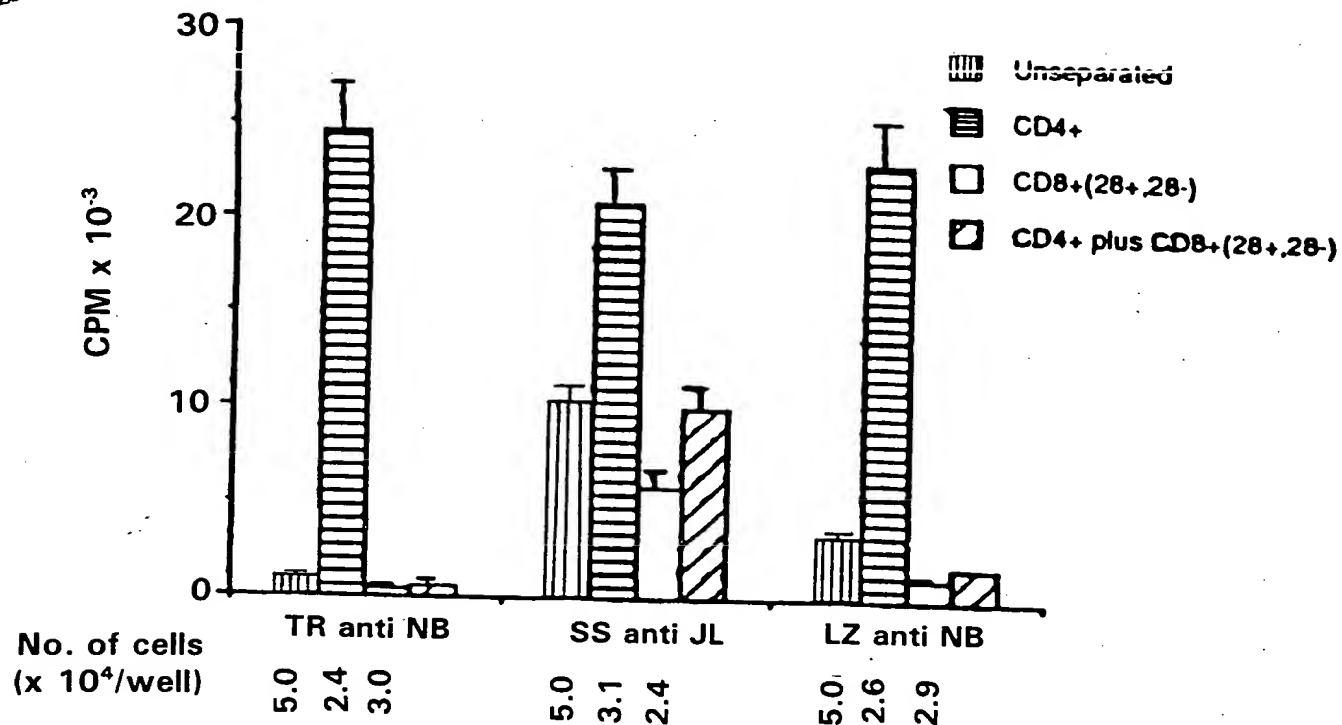
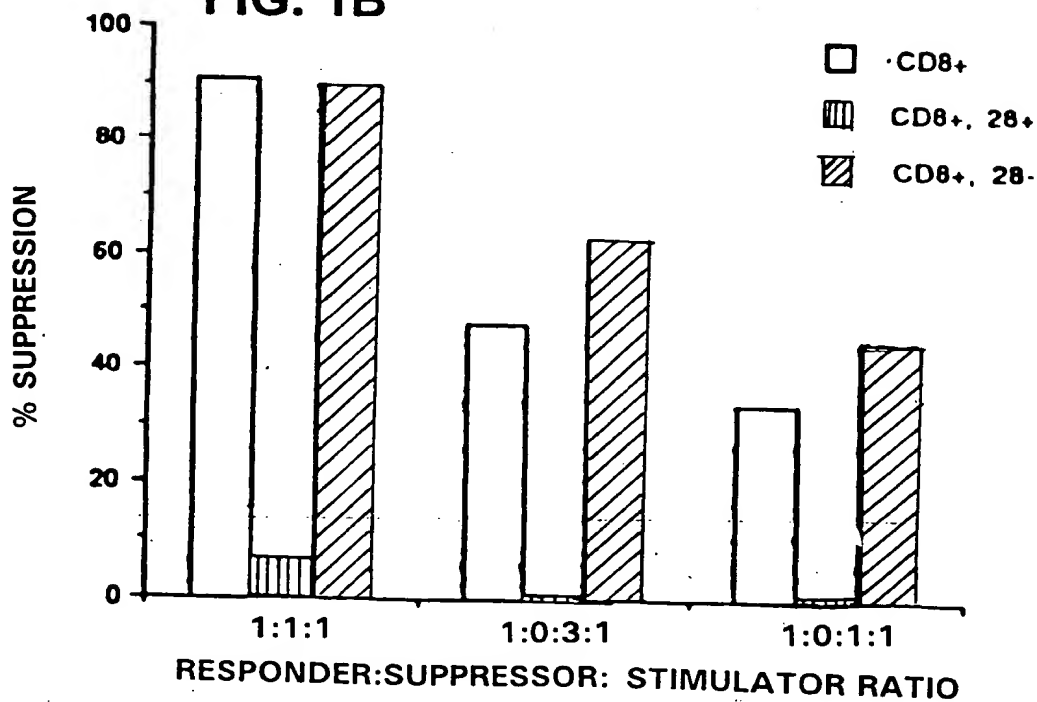
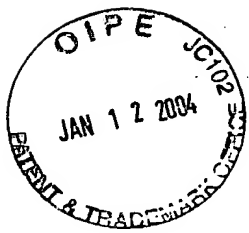


FIG. 1B





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FIGURE 1C

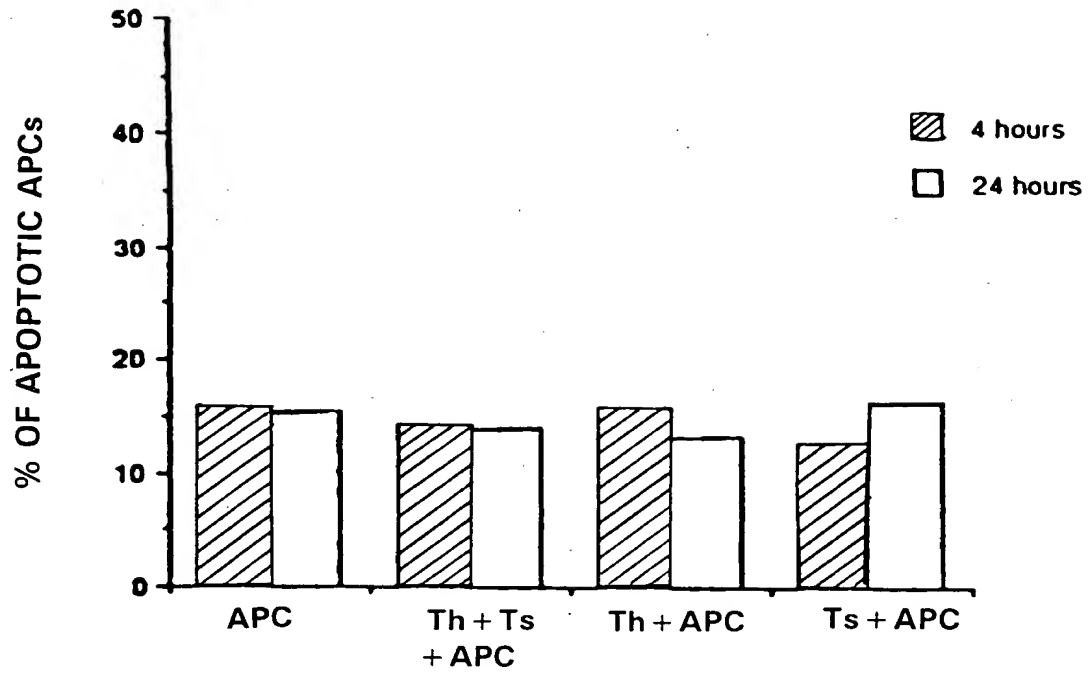


FIGURE 1D

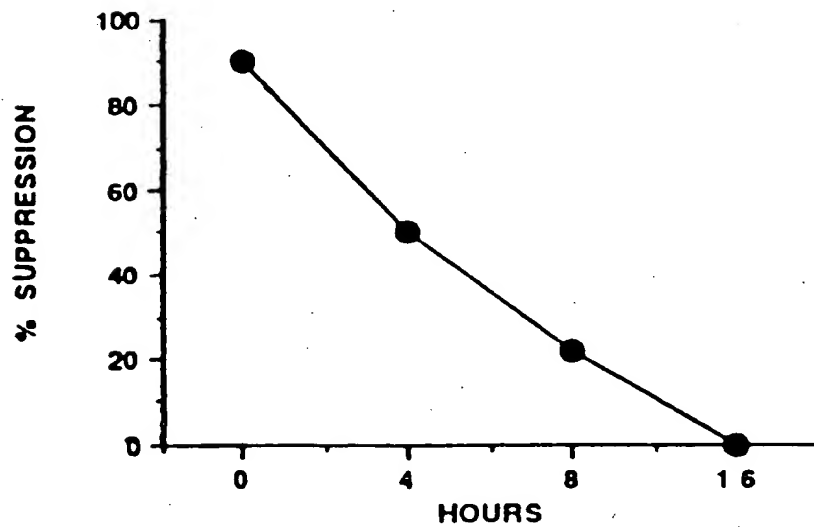


FIGURE 2A

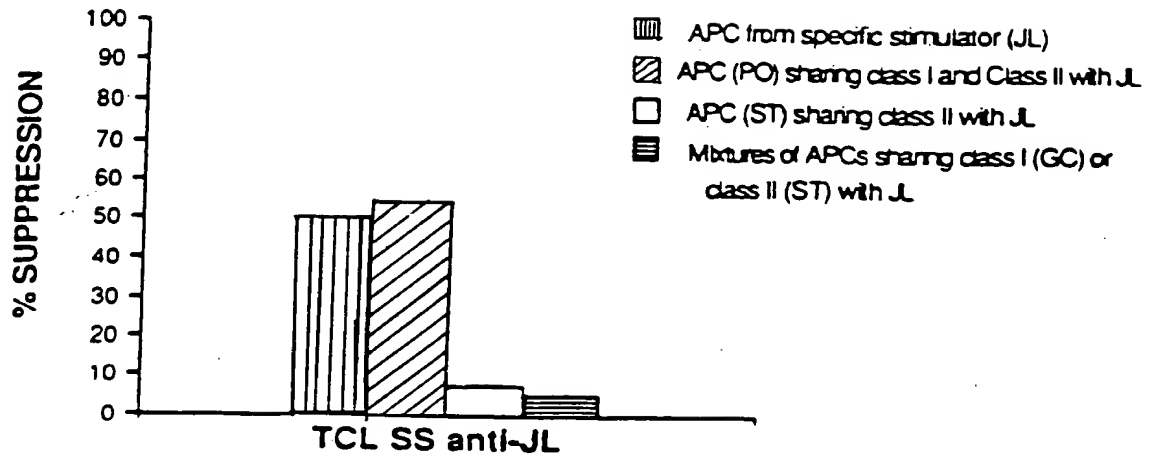
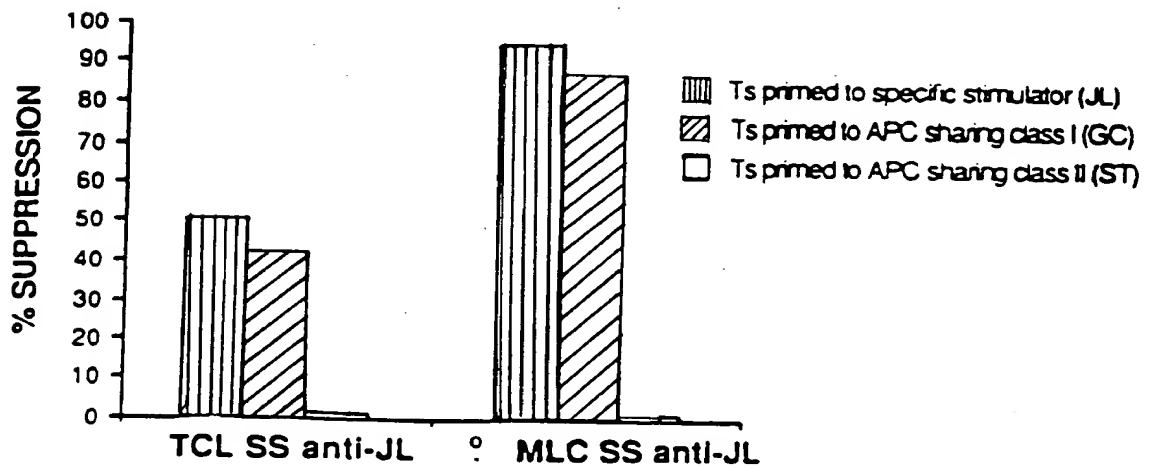
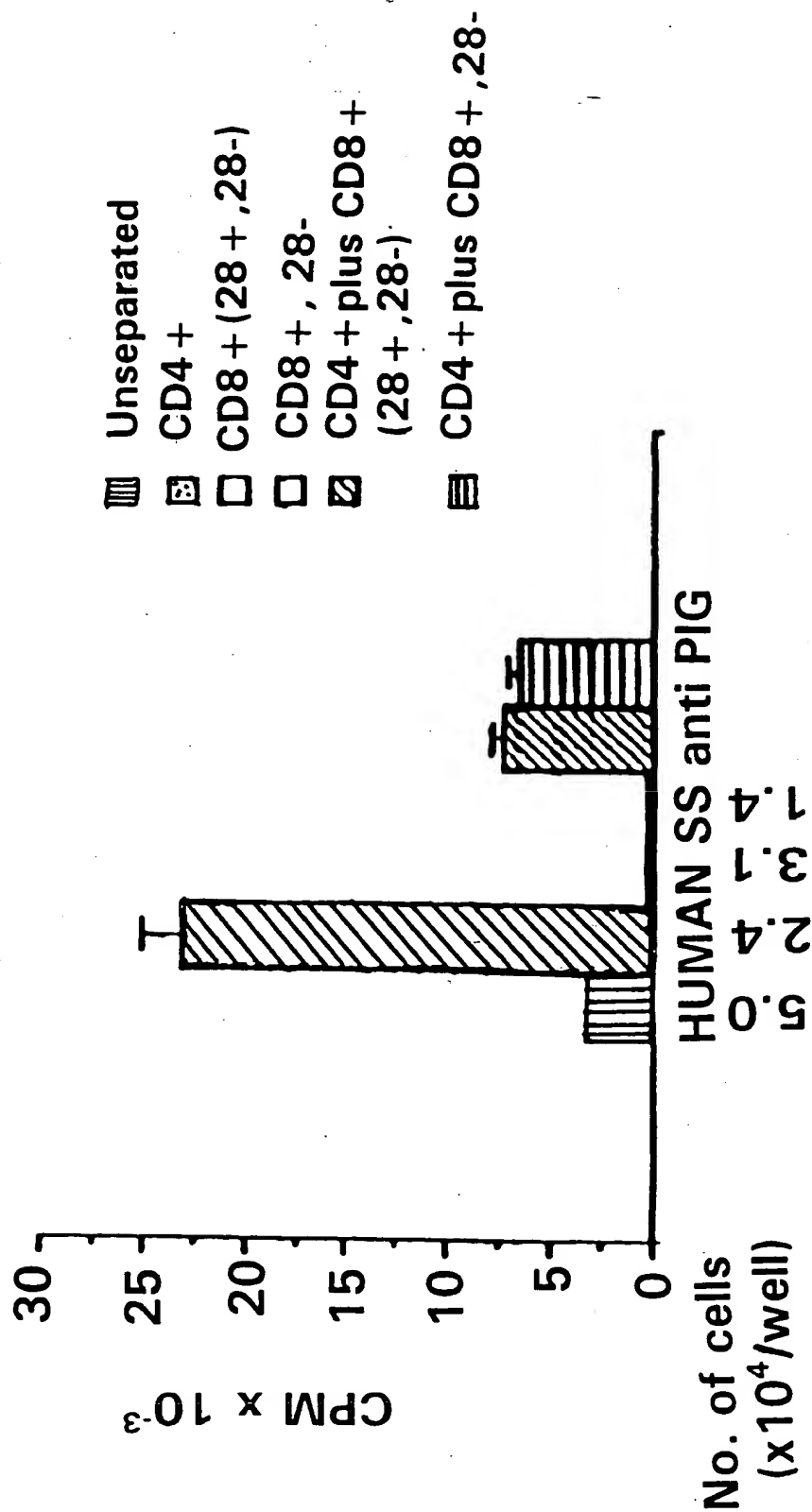


FIGURE 2B



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FIGURE 3



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FIGURE 4A

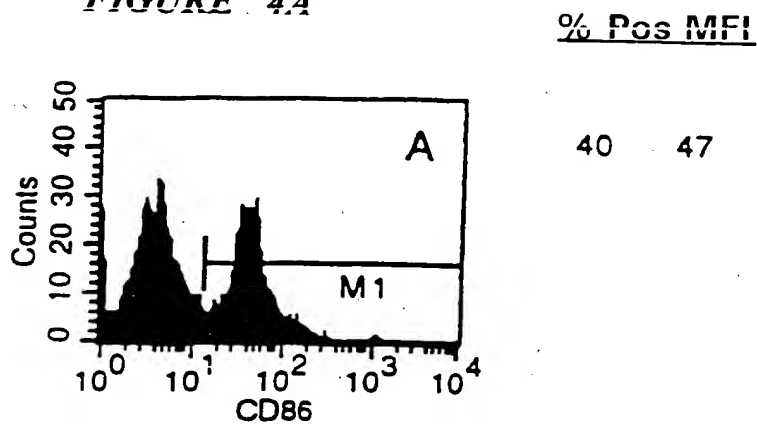


FIGURE 4B

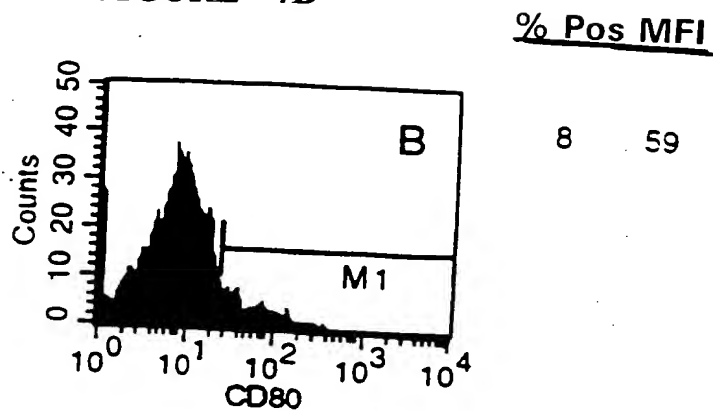


FIGURE 4C

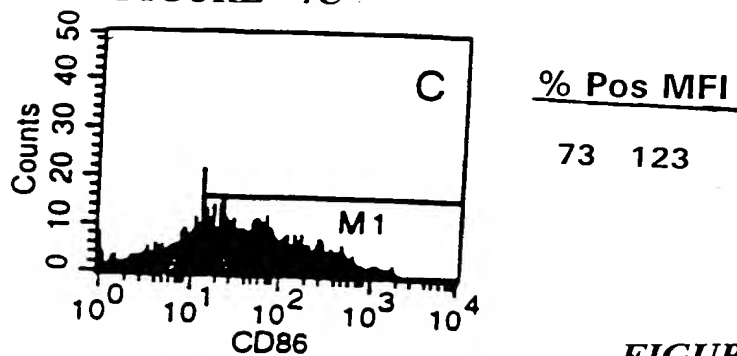
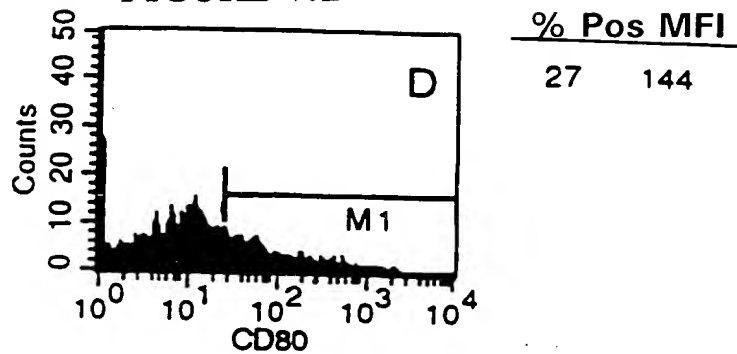
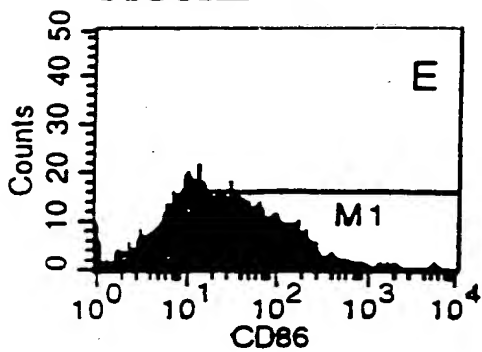


FIGURE 4D



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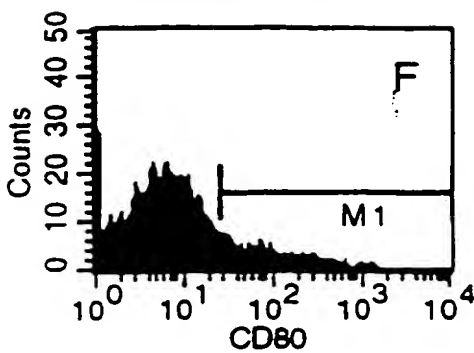
FIGURE 4E



% Pos MFI

63 78

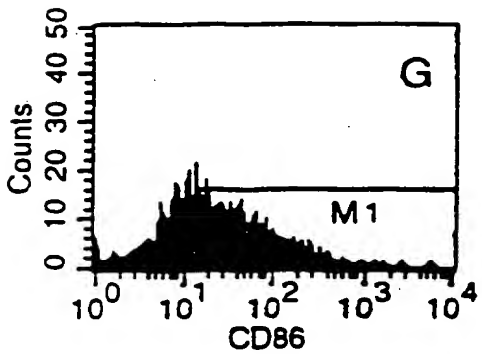
FIGURE 4F



% Pos MFI

13 128

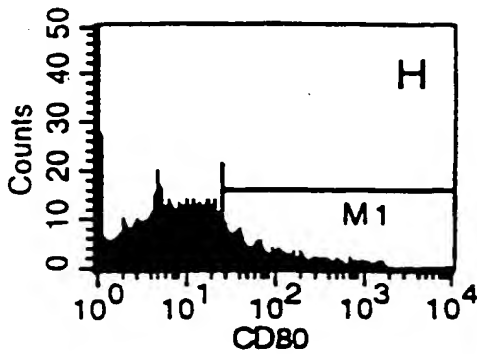
FIGURE 4G



% Pos MFI

61 74

FIGURE 4H



% Pos MFI

17 110



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FIGURE 5

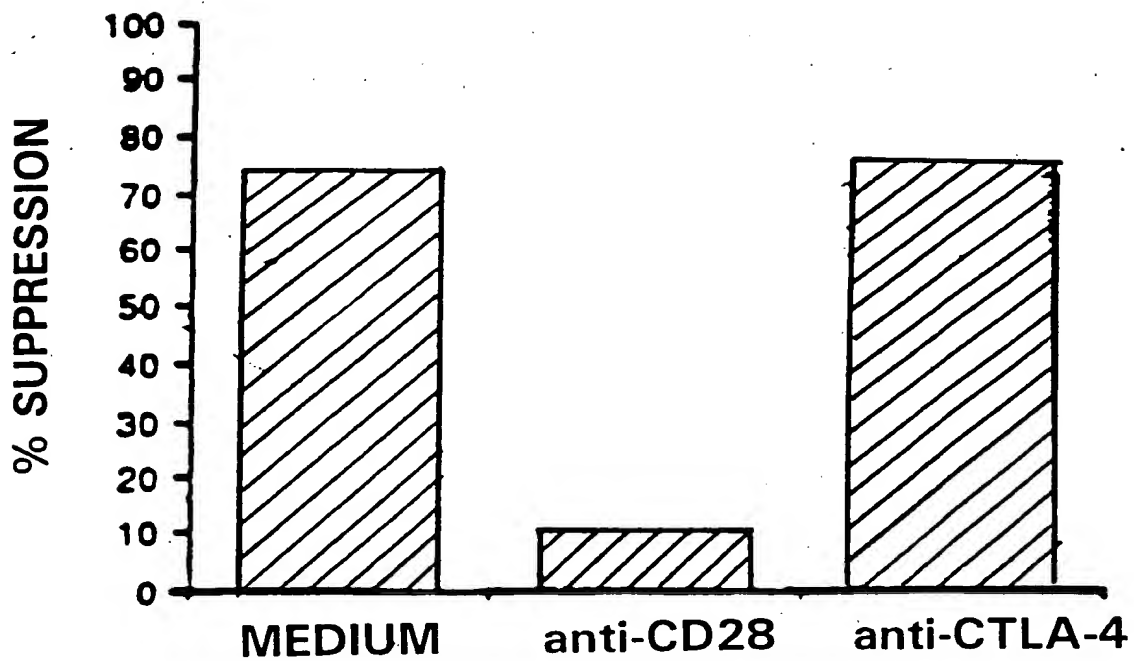


FIGURE 6A

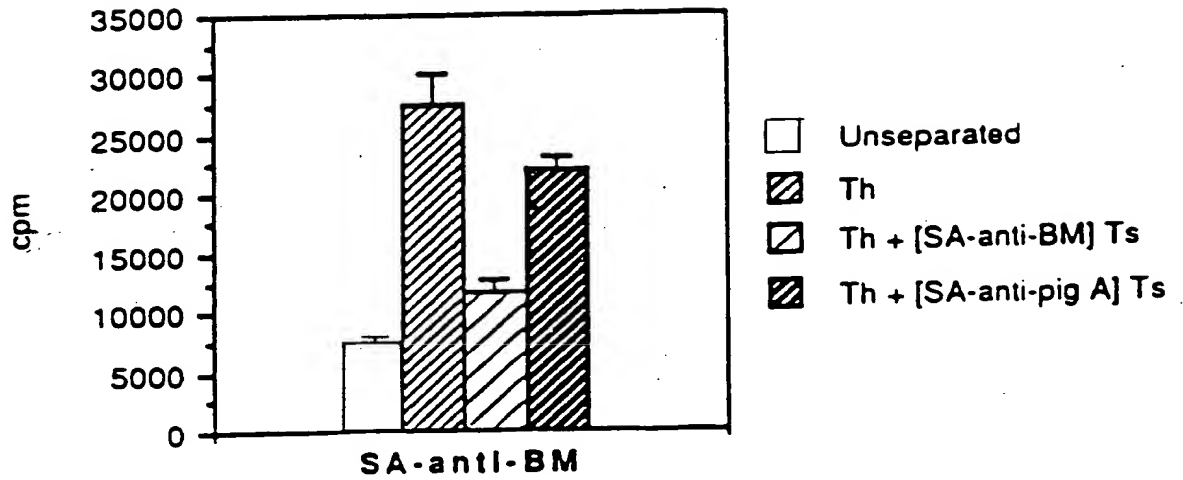
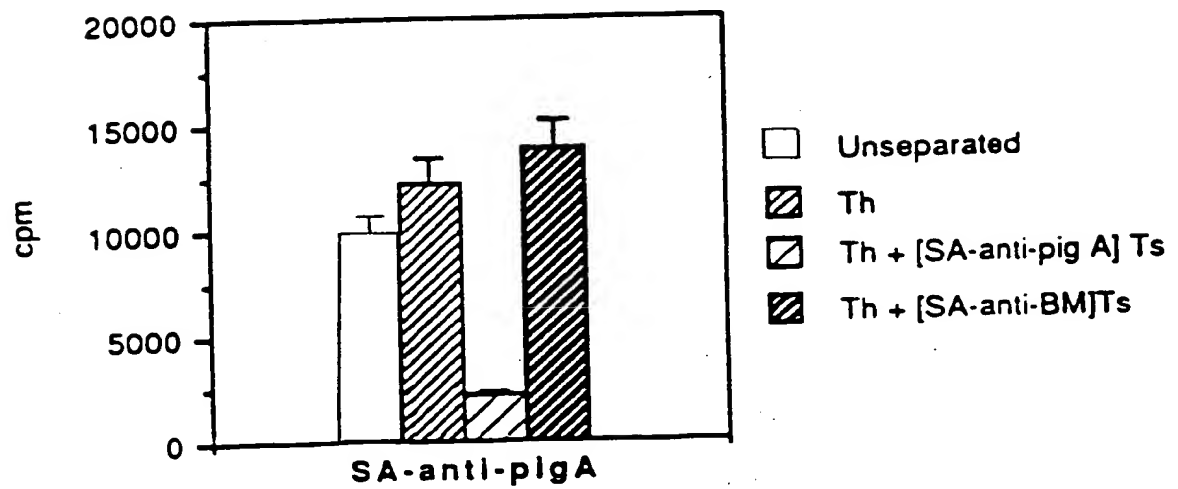
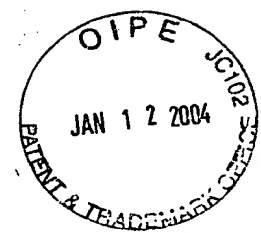


FIGURE 6B





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FIGURE 7A

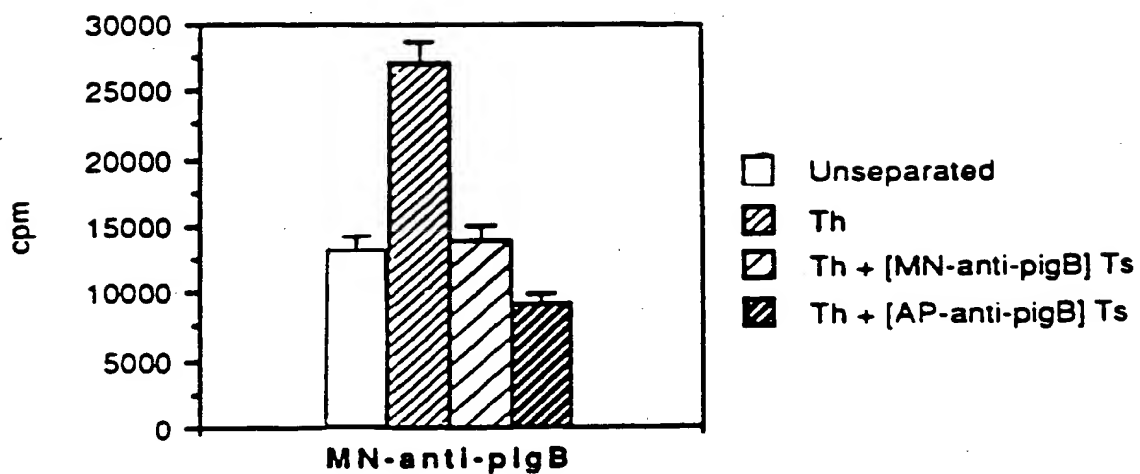
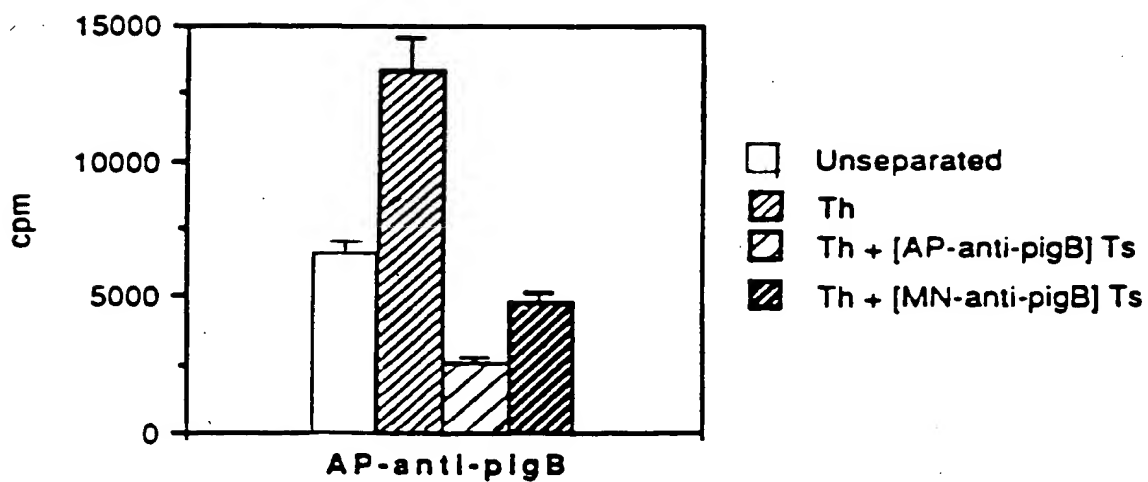


FIGURE 7B





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FIGURE 8A

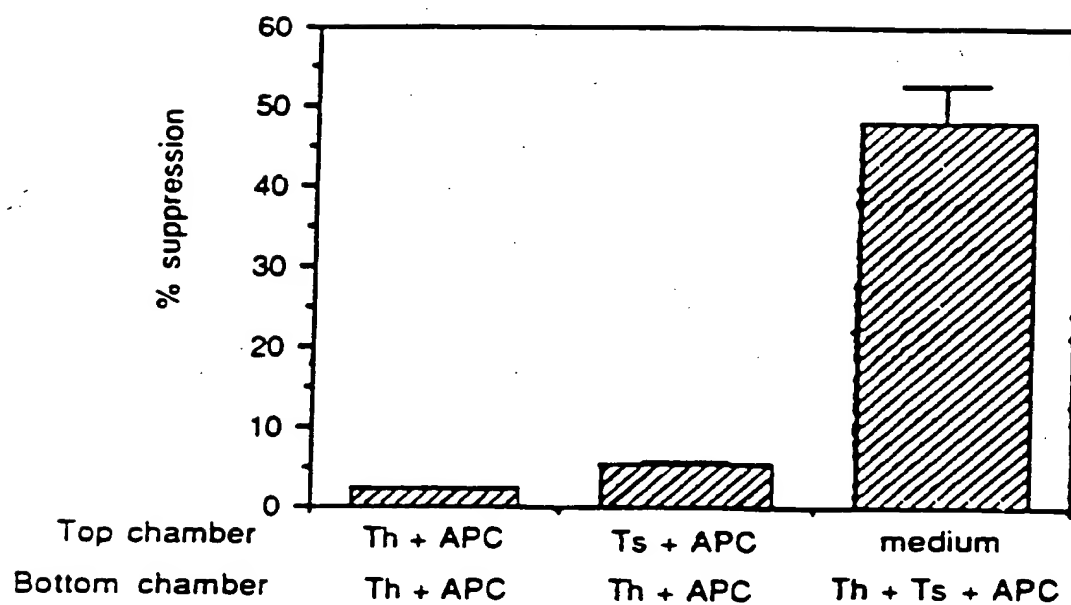
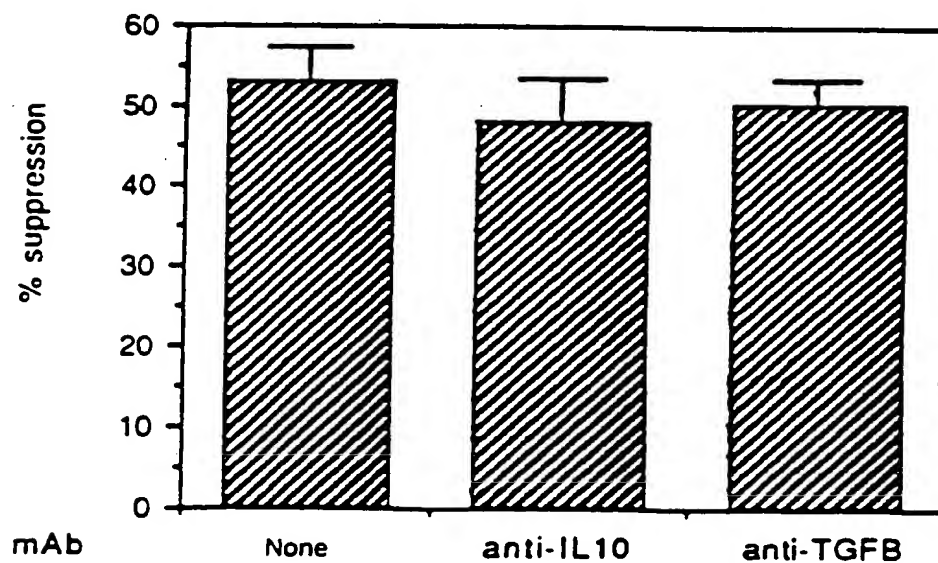


FIGURE 8B





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FIGURE 9A

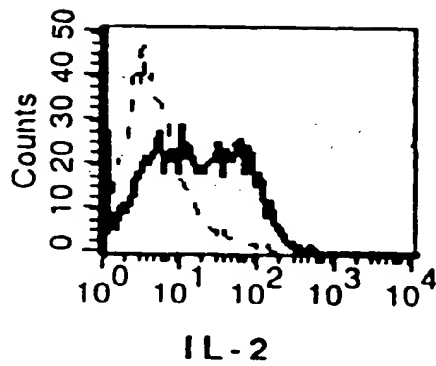
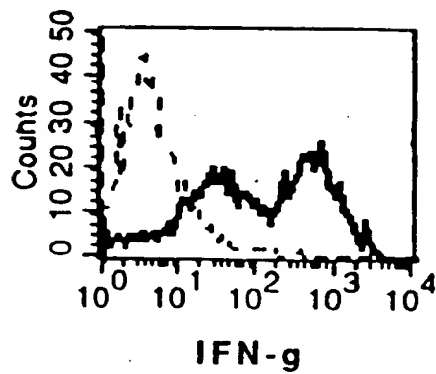


FIGURE 9B



T helper cells

FIGURE 9C

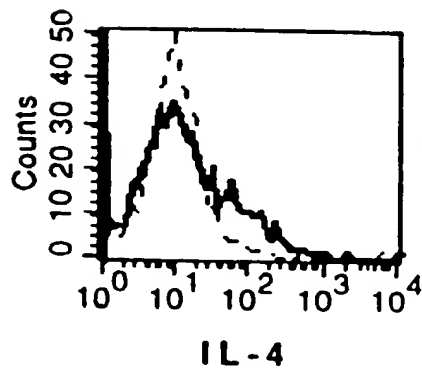
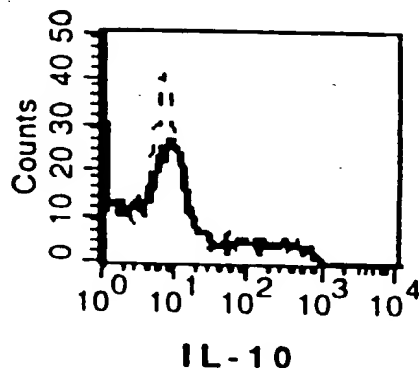


FIGURE 9D



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FIGURE 9E

FIGURE 9F

T suppressor cells

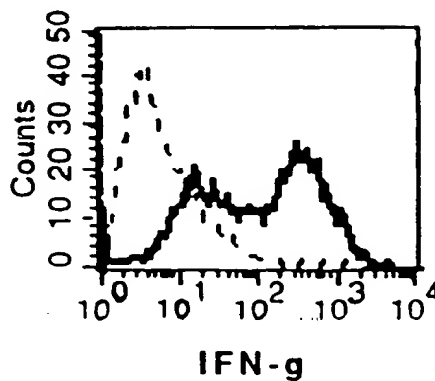
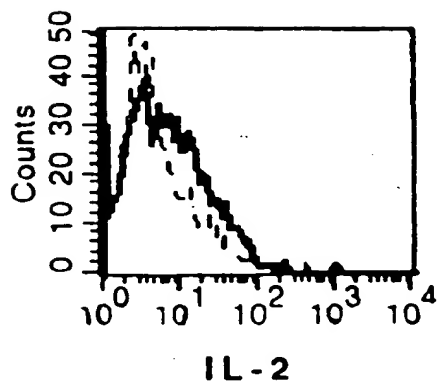


FIGURE 9G

FIGURE 9H

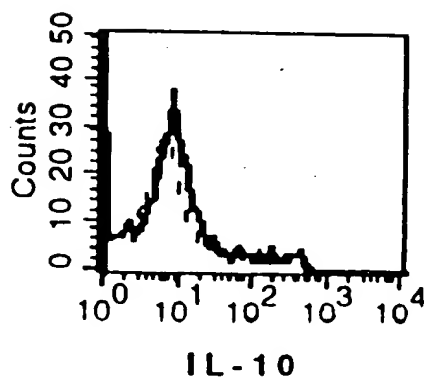
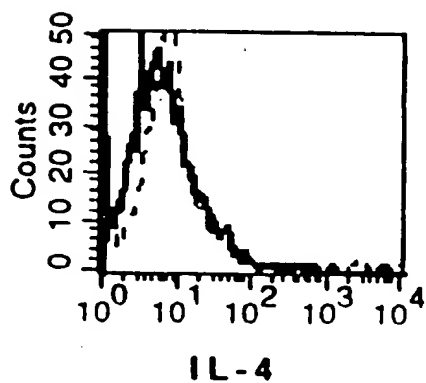


FIGURE 10A

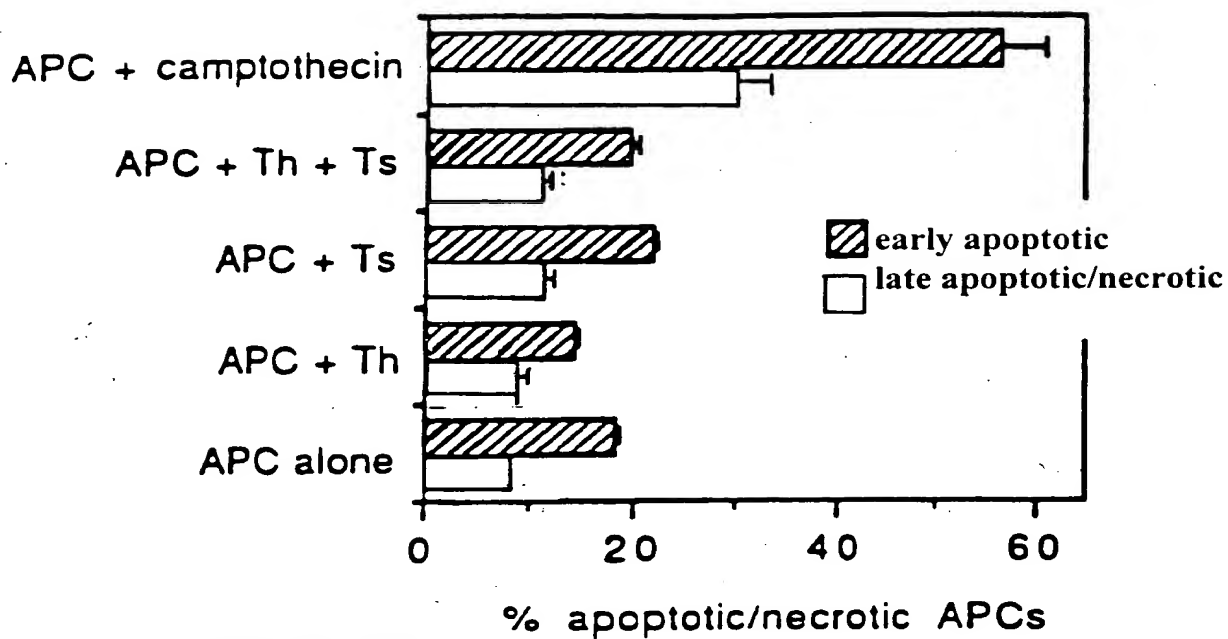


FIGURE 10B

Effector/
Target

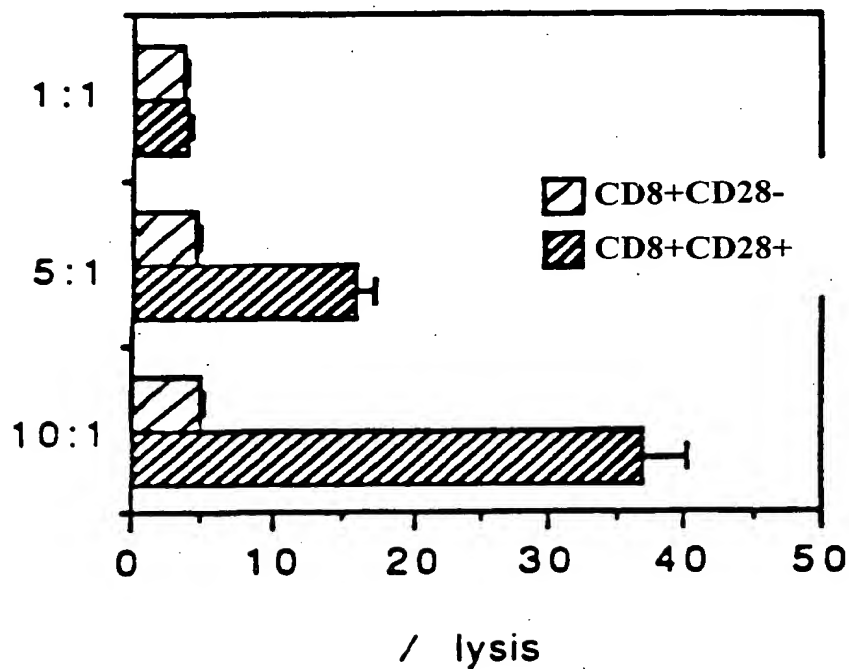
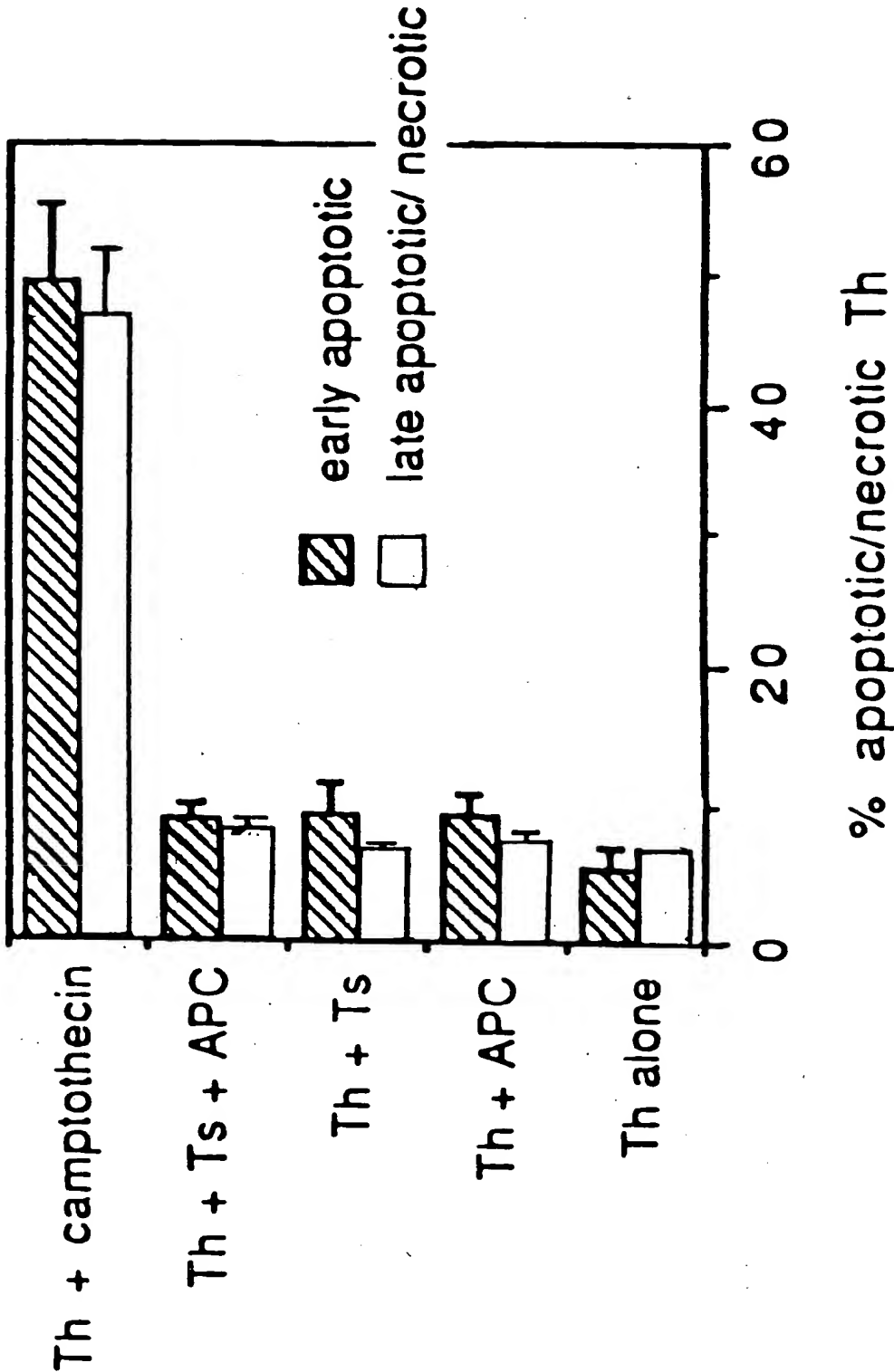


FIGURE 10C





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FIGURE 11A

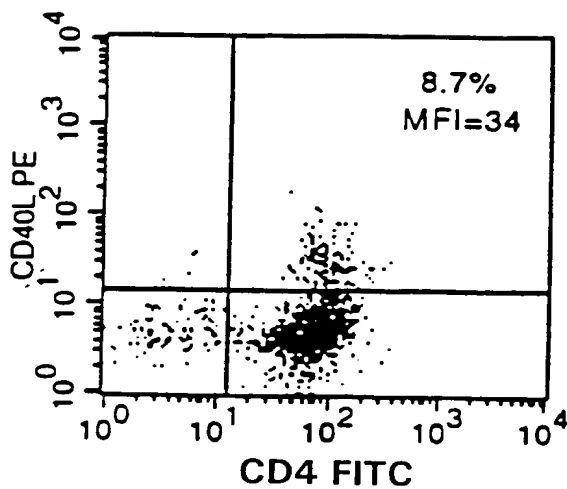


FIGURE 11B

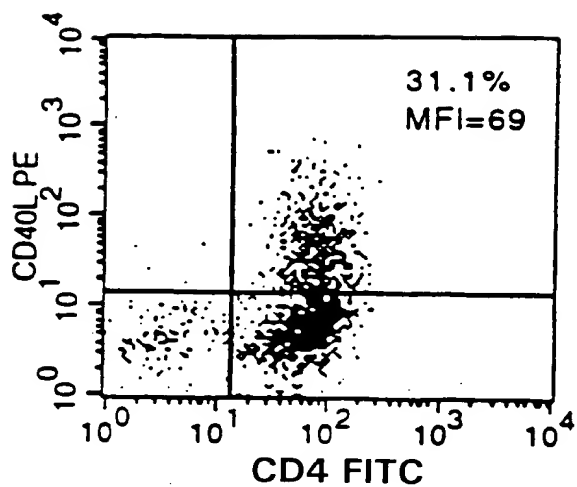


FIGURE 11C

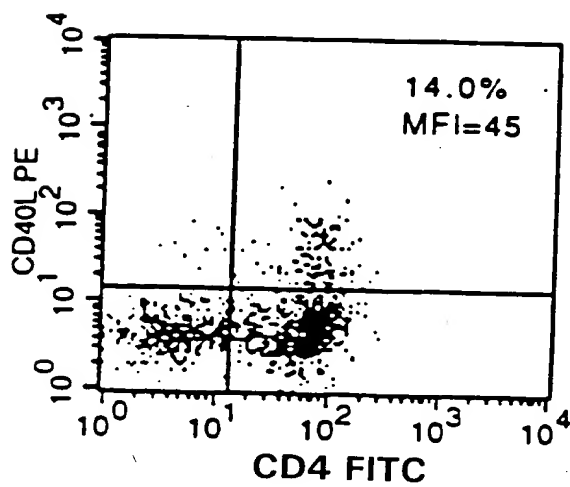
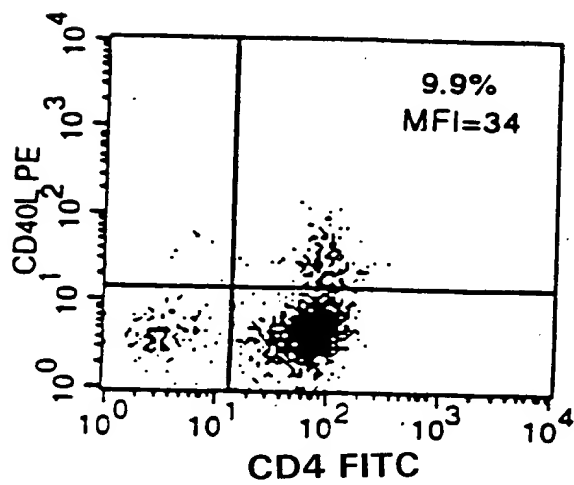


FIGURE 11D



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FIGURE 12

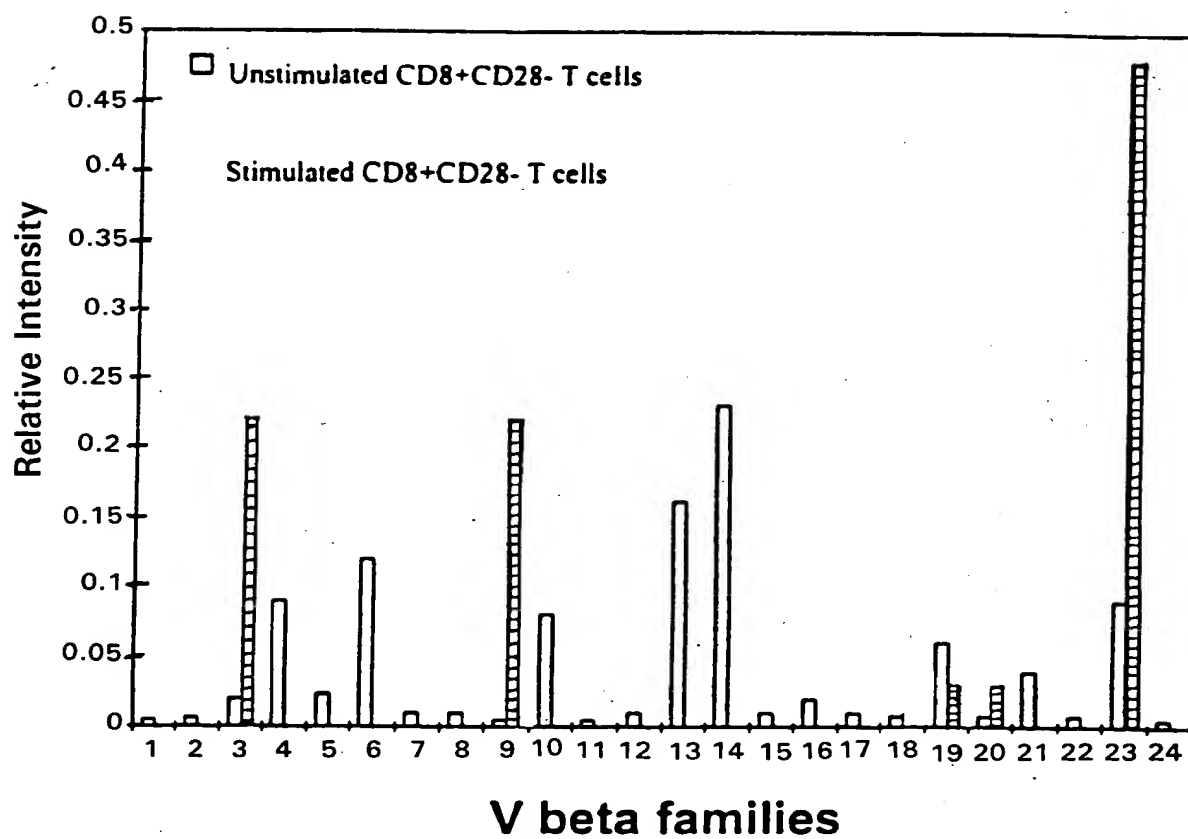


FIGURE 13A

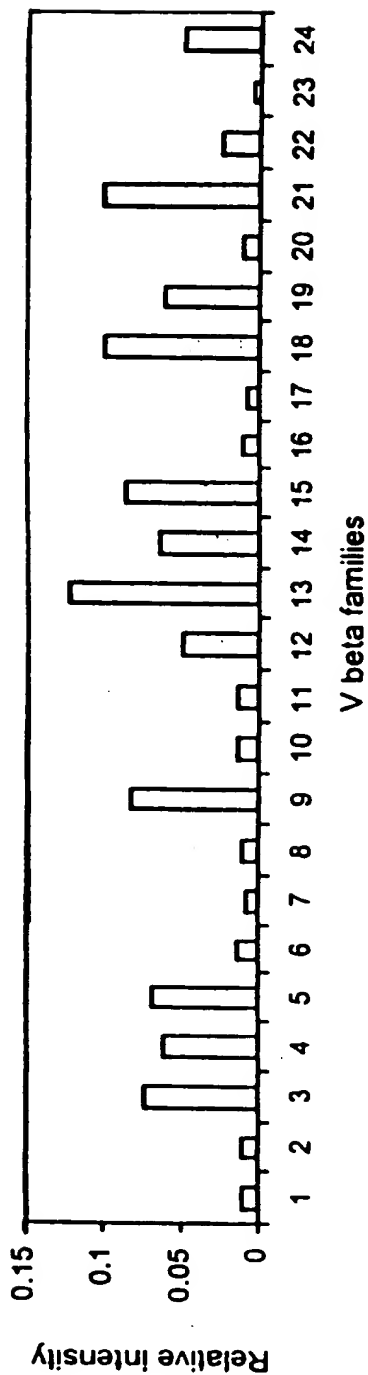
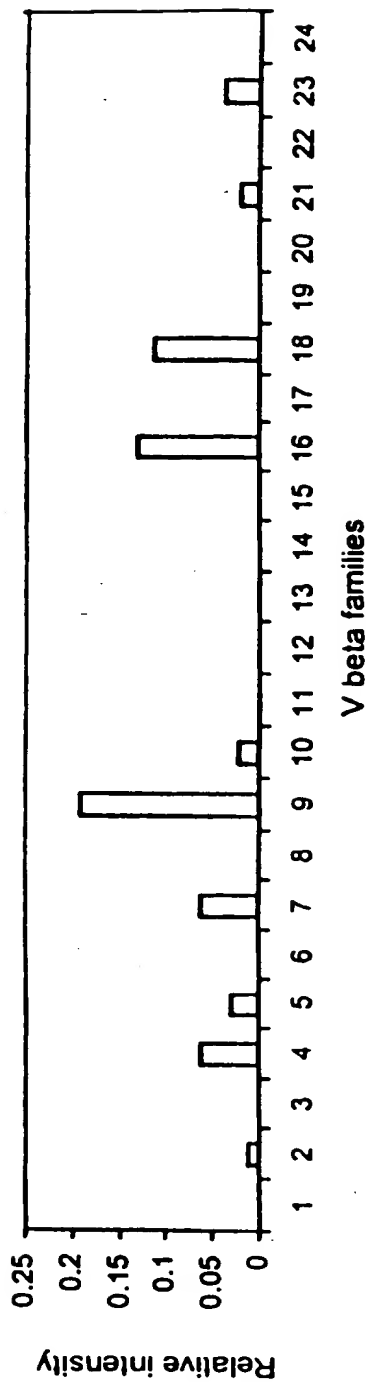


FIGURE 13B



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FIGURE 13C

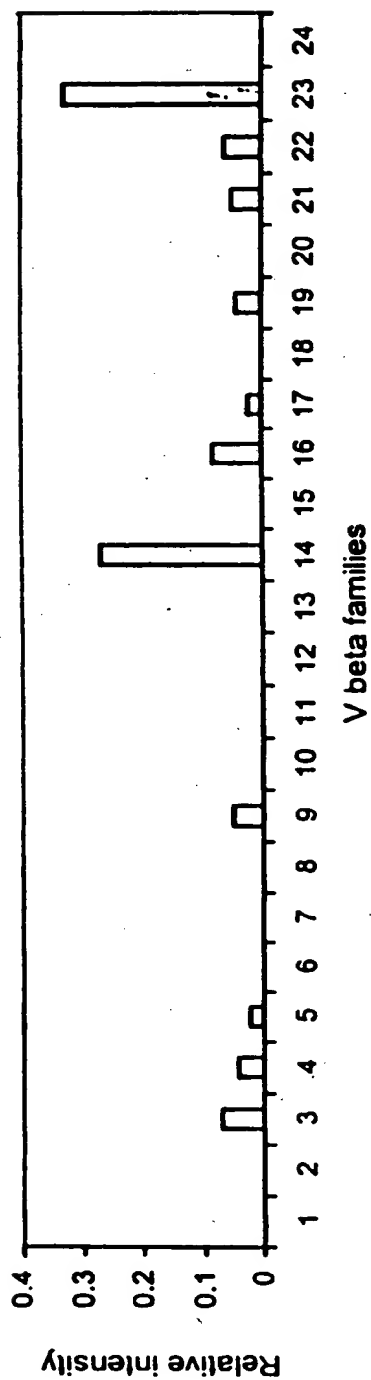
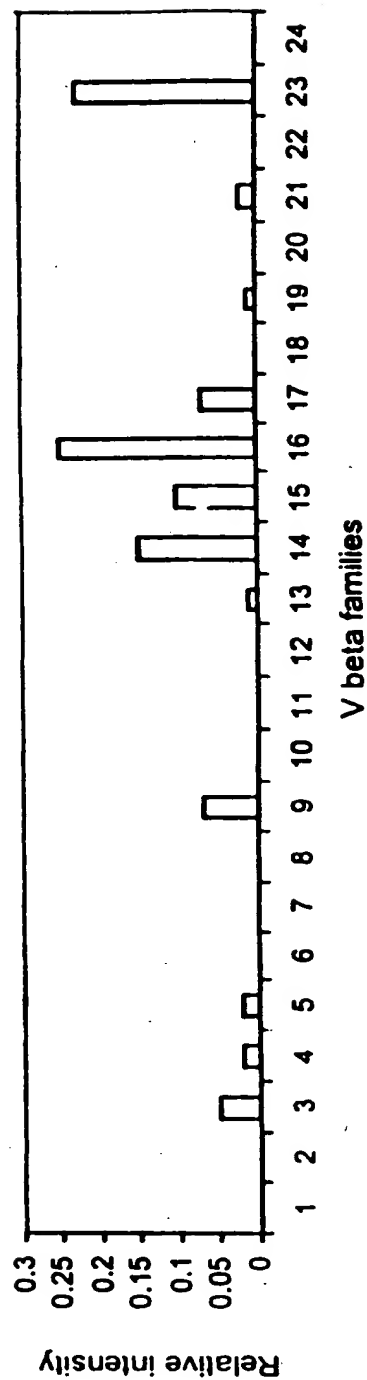


FIGURE 13D





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FIGURE 14A

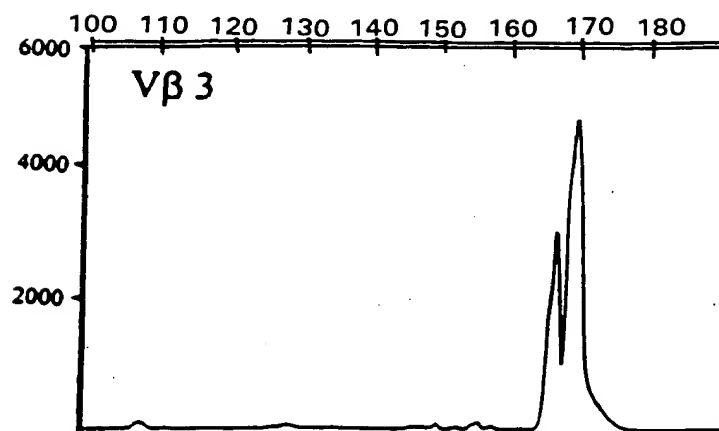


FIGURE 14B

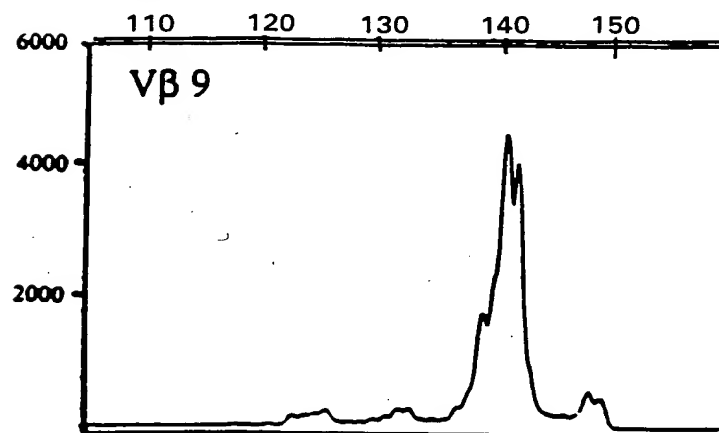
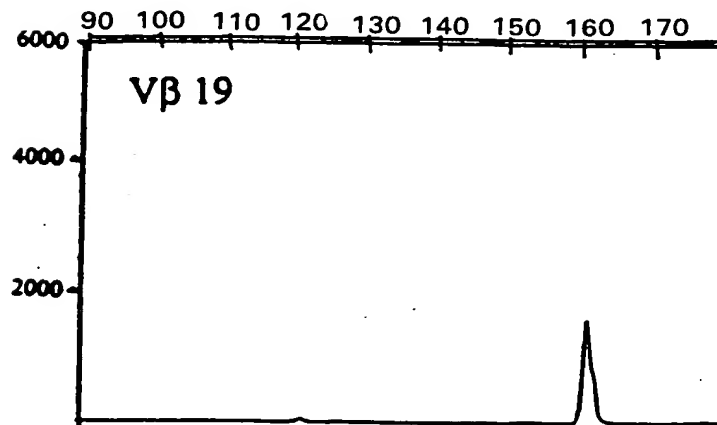


FIGURE 14C





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FIGURE 14D

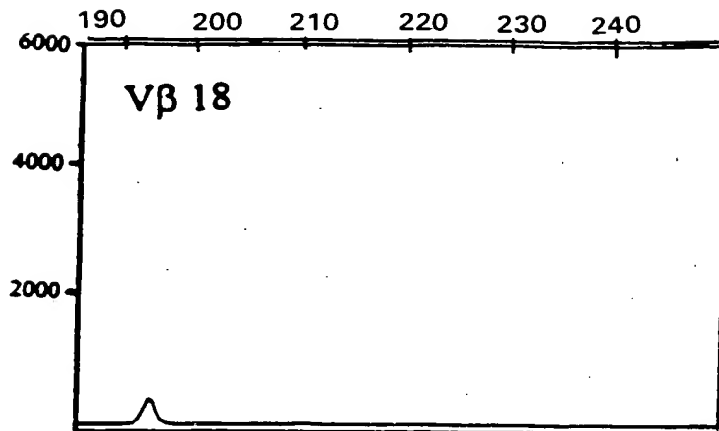


FIGURE 14E

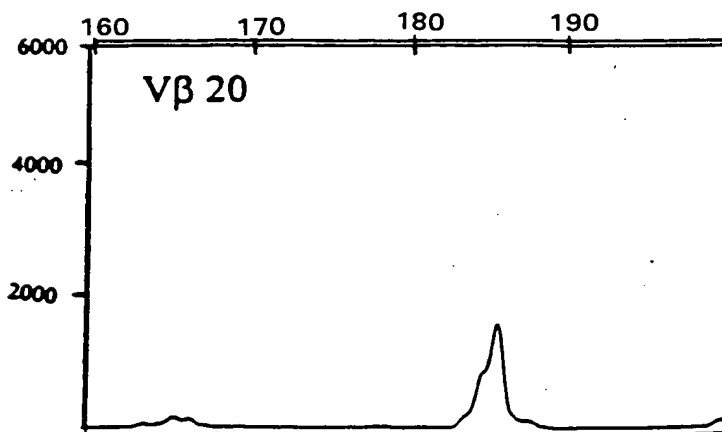
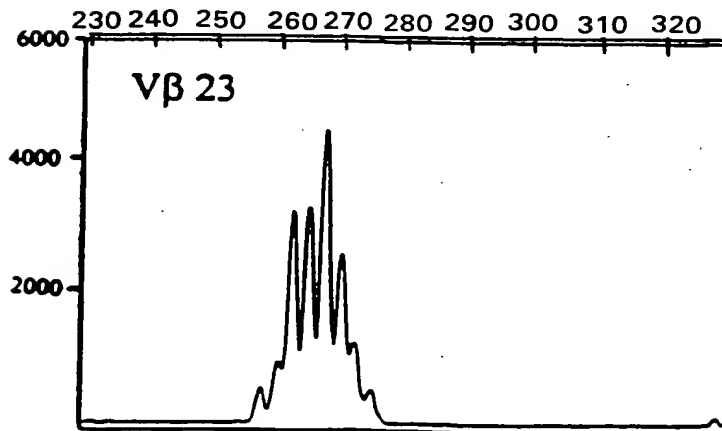


FIGURE 14F





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FIGURE 15A

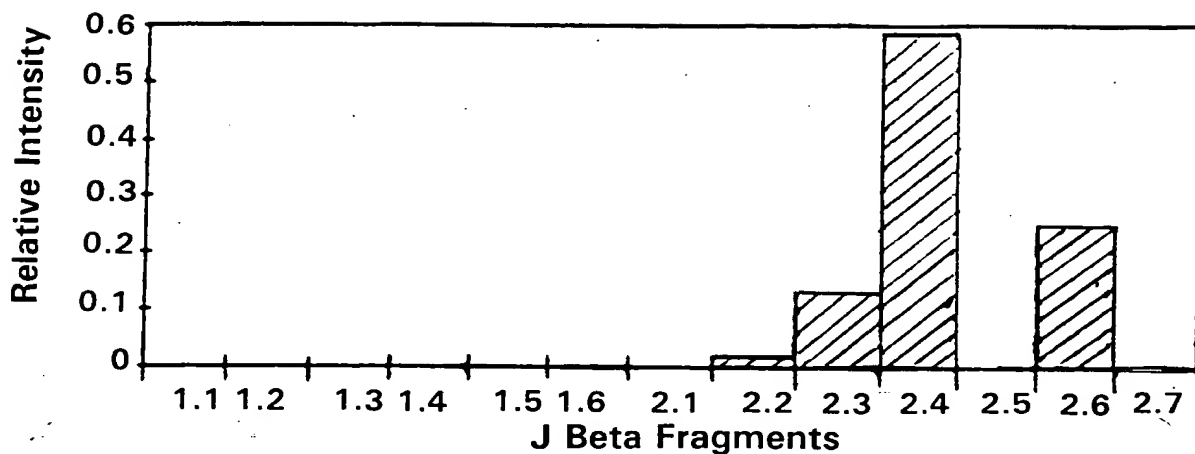


FIGURE 15B

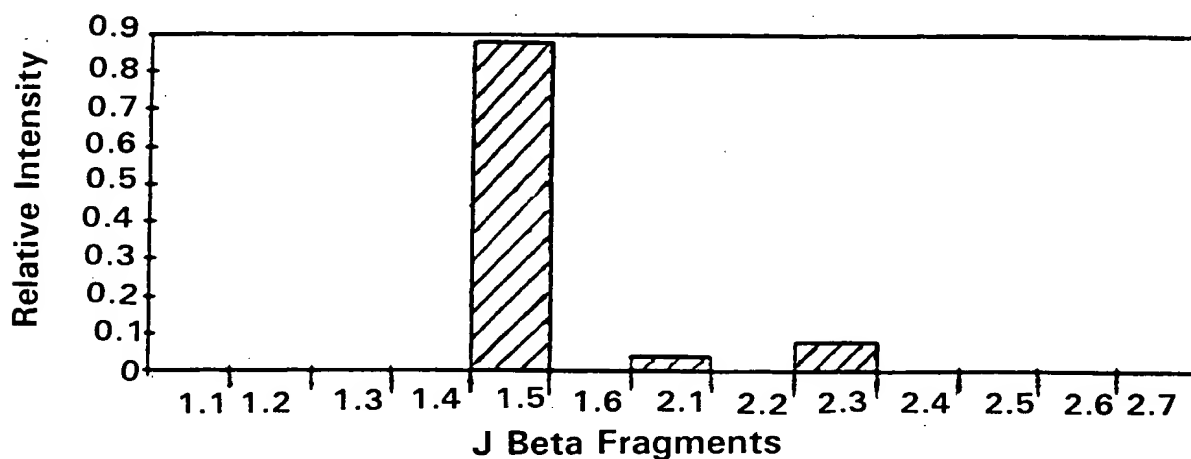
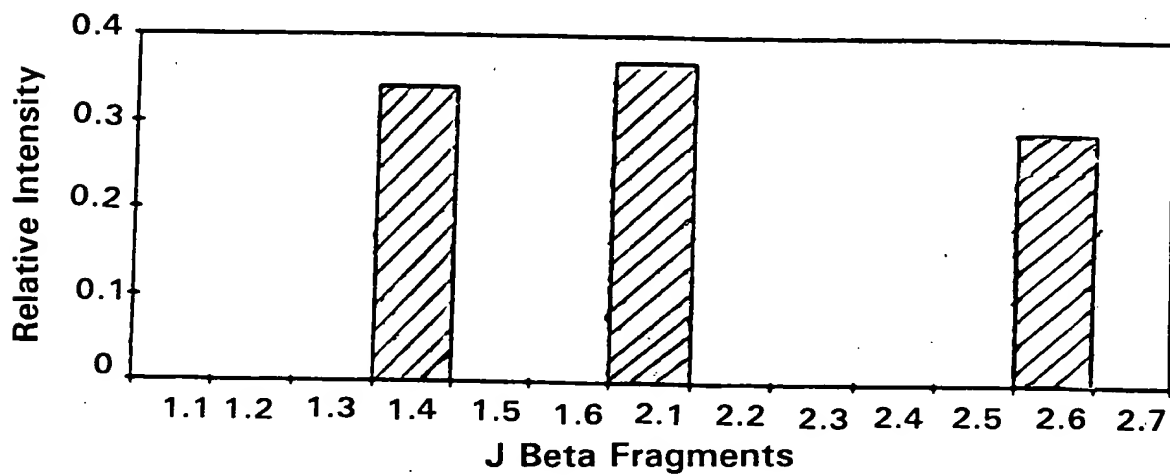


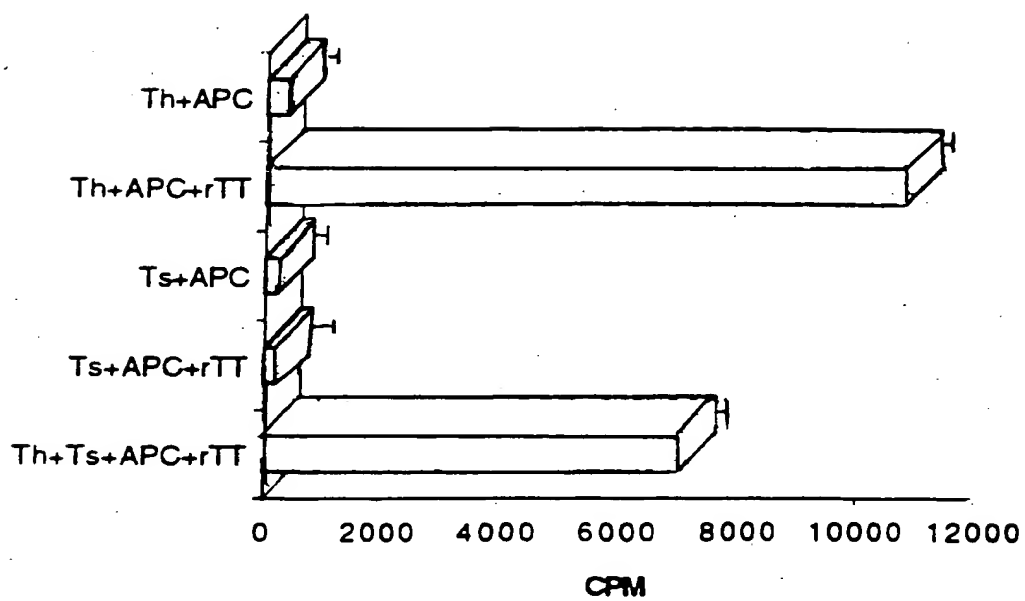
FIGURE 15C





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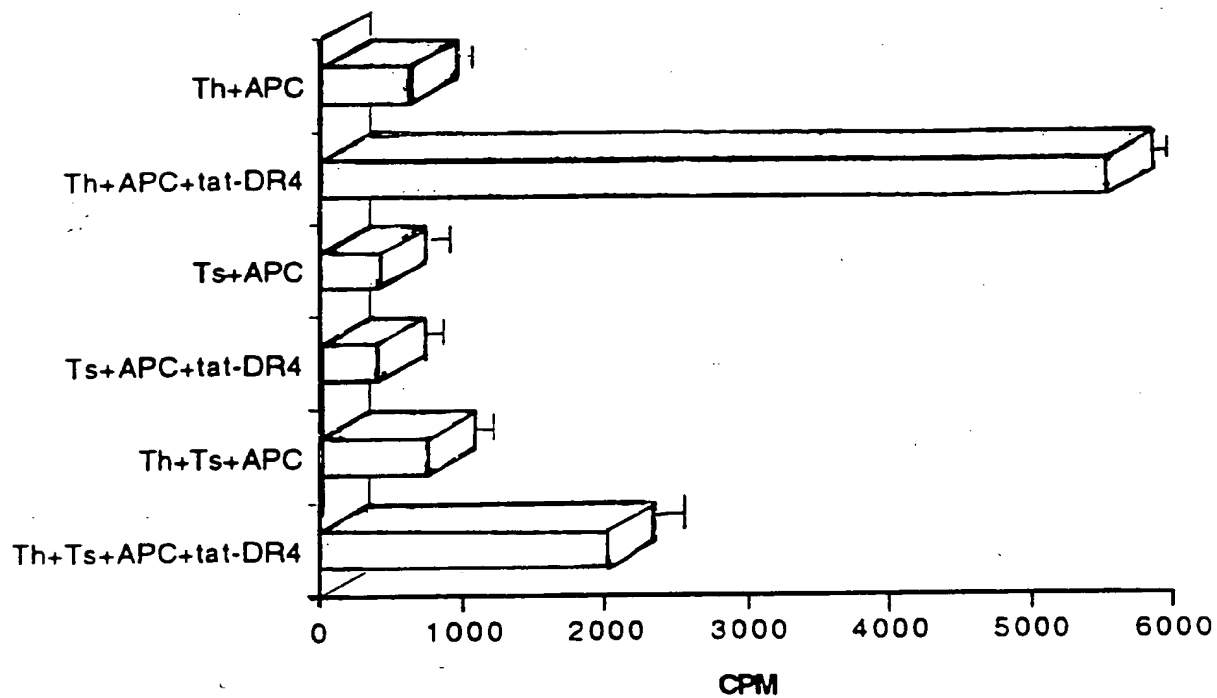
FIGURE 16





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FIGURE 17





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FIGURE 18A

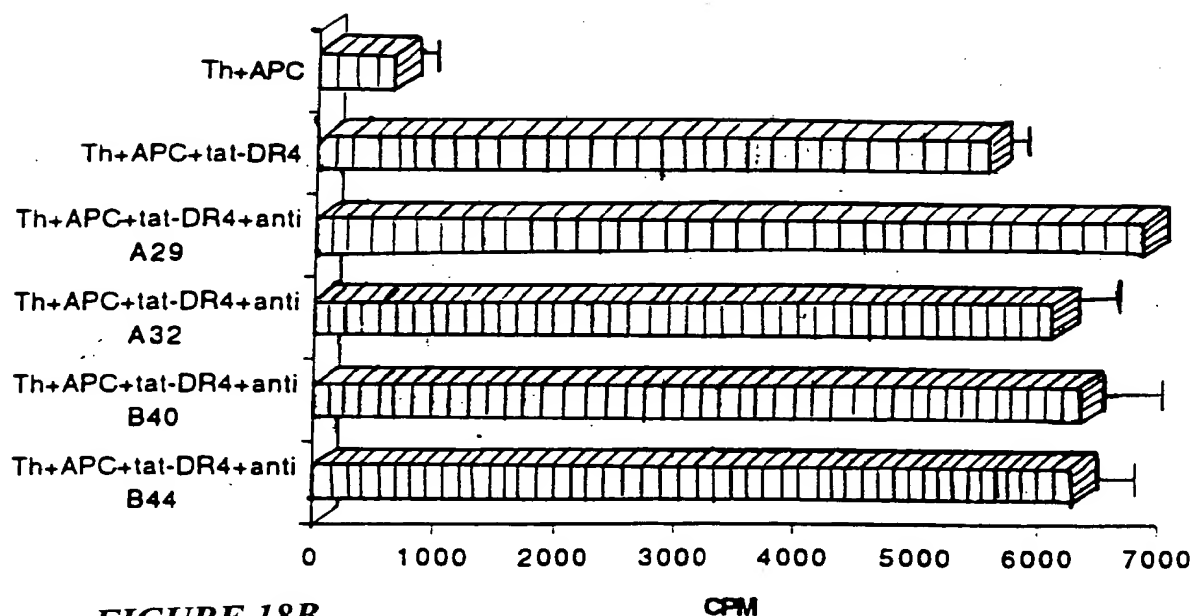
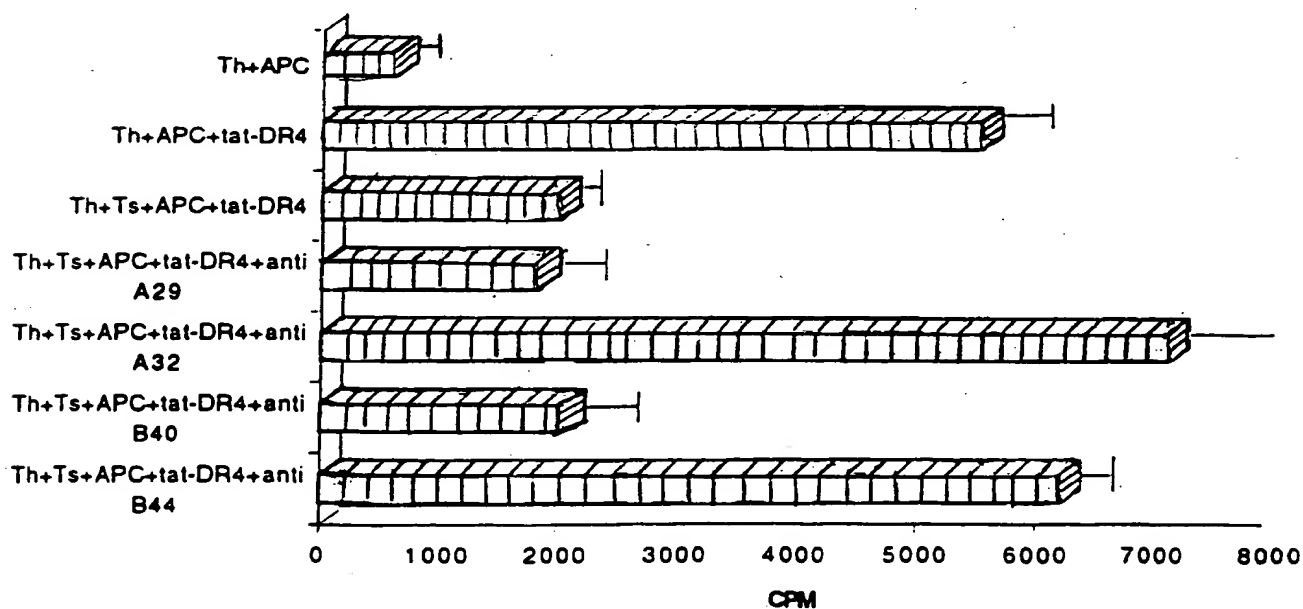


FIGURE 18B





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FIGURE 19A-1

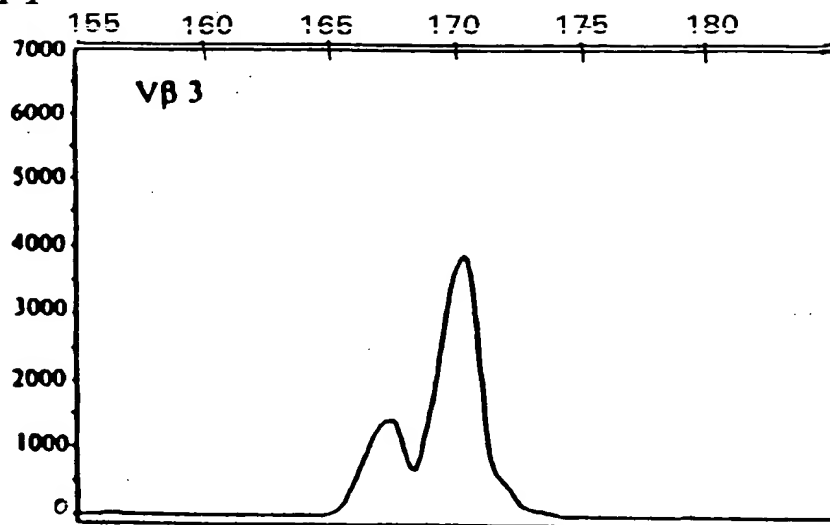


FIGURE 19A-2

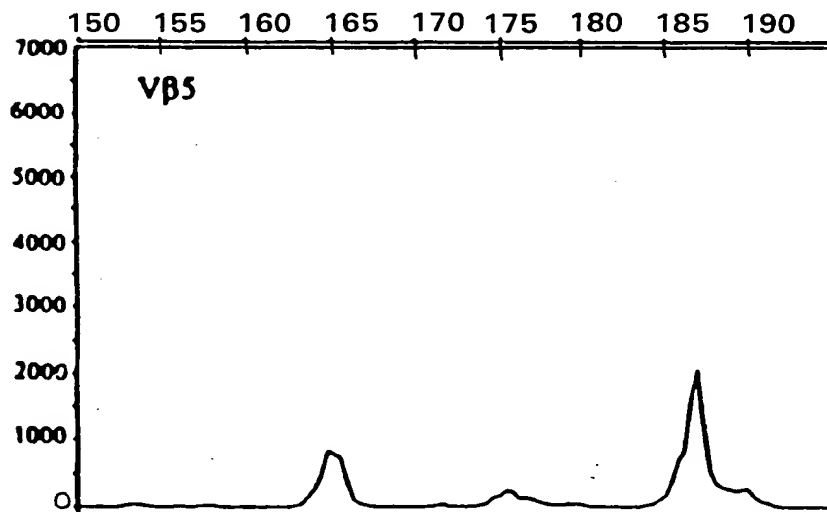
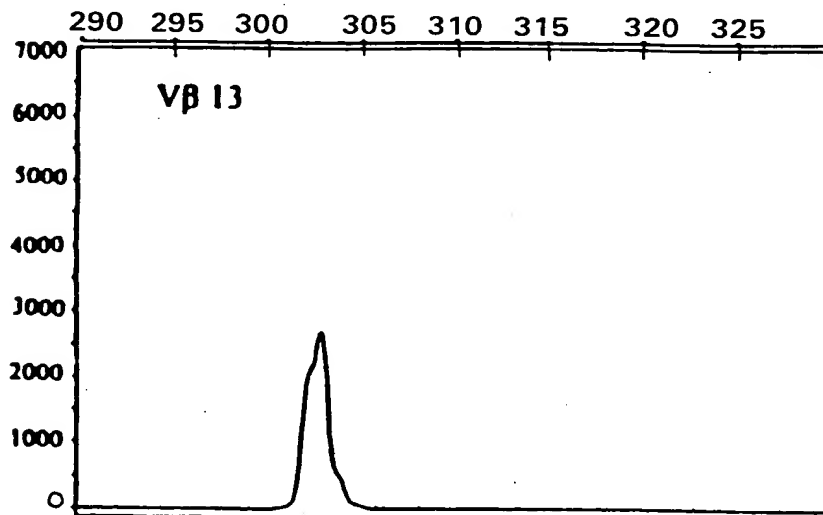


FIGURE 19A-3





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FIGURE 19A-4

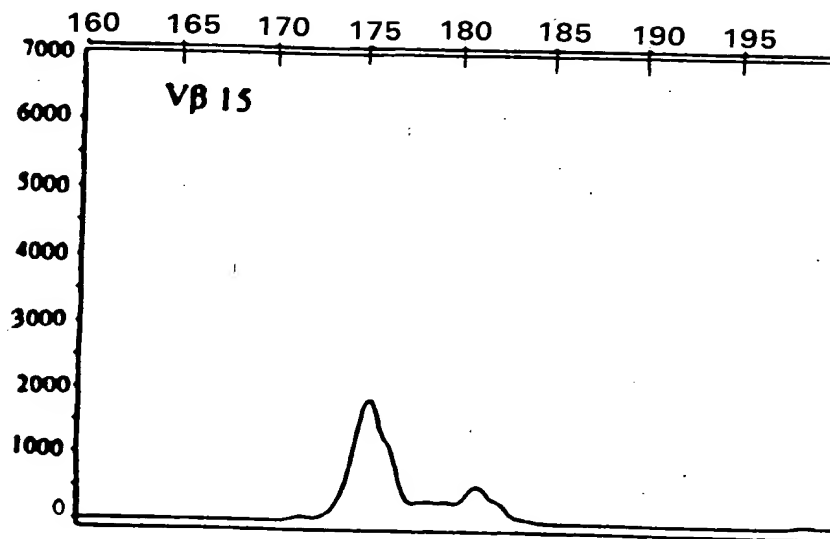
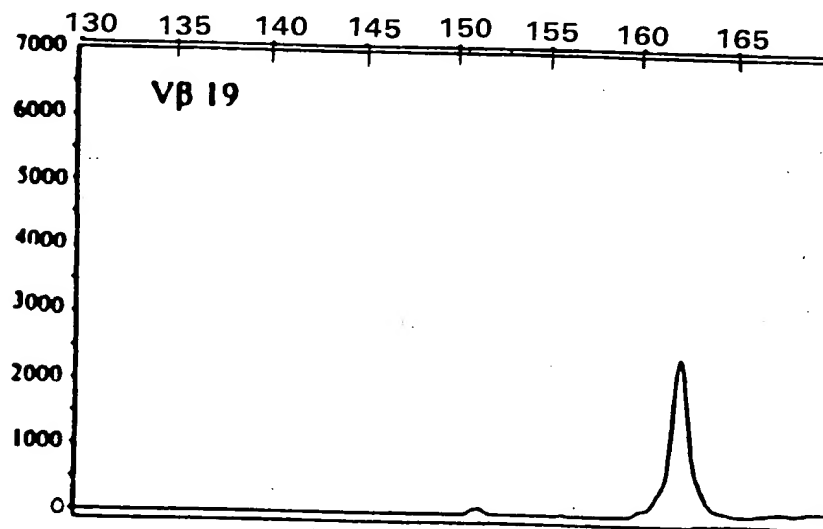
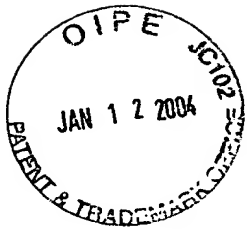


FIGURE 19A-5





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FIGURE 19B-1

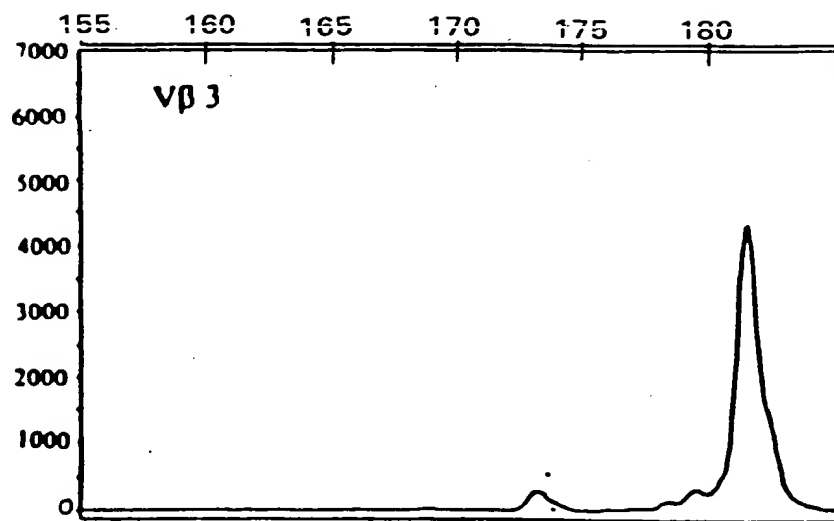


FIGURE 19B-2

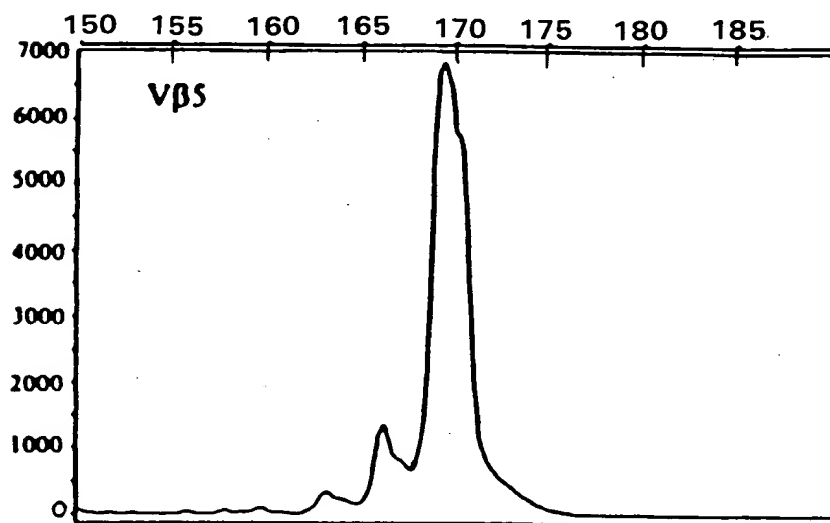
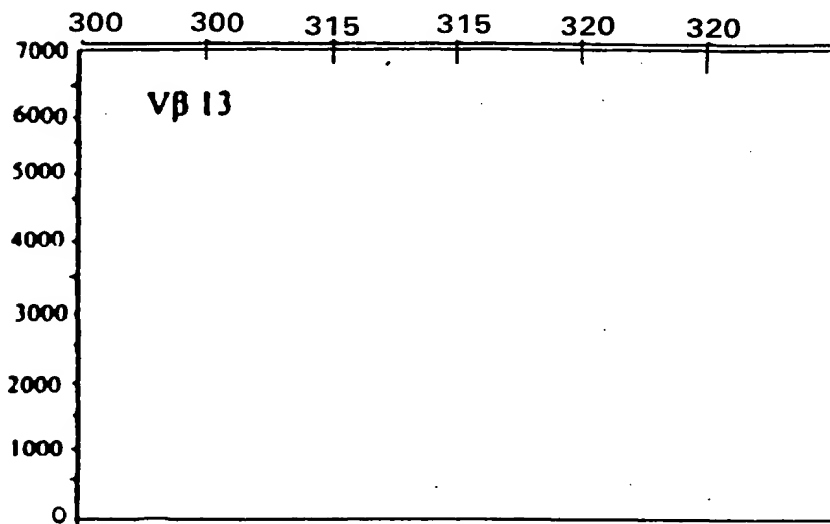


FIGURE 19B-3





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FIGURE 19B-4

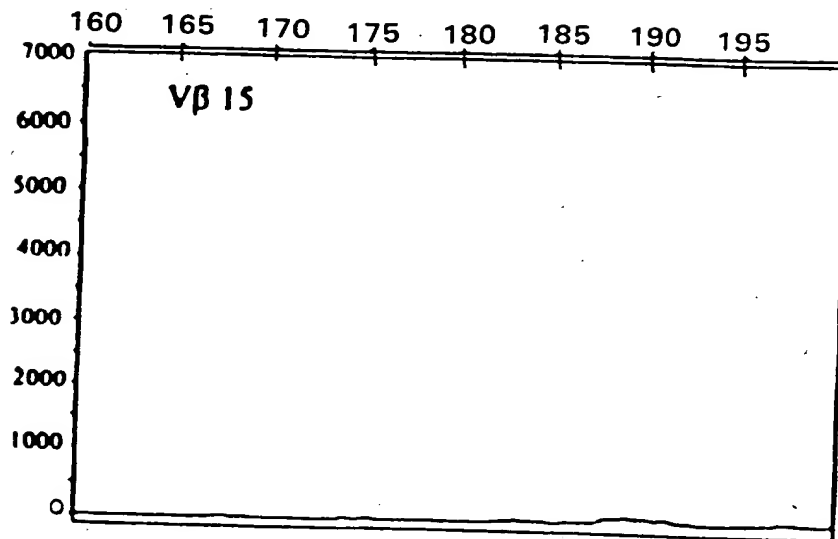
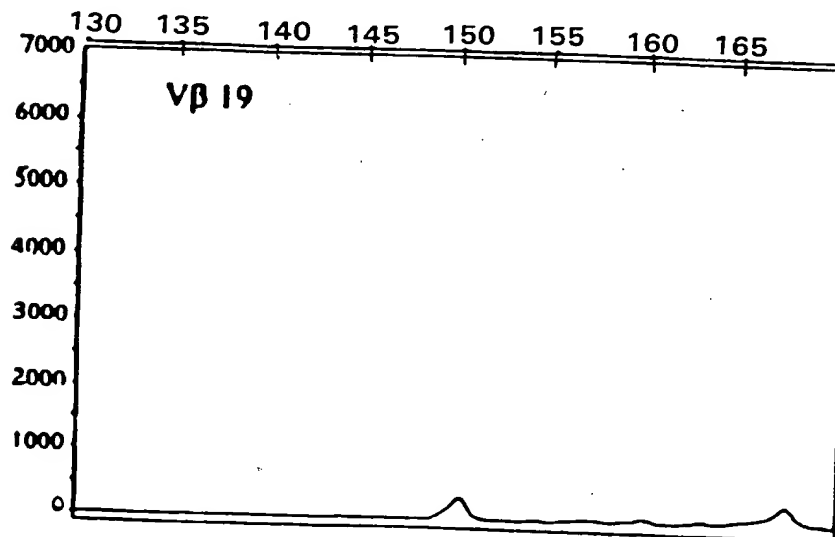


FIGURE 19B-5



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FIGURE 19C-1

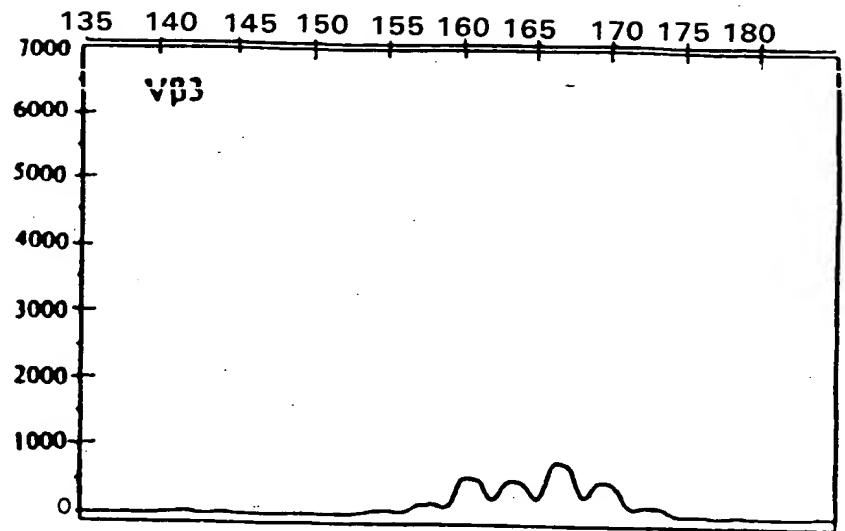


FIGURE 19C-2

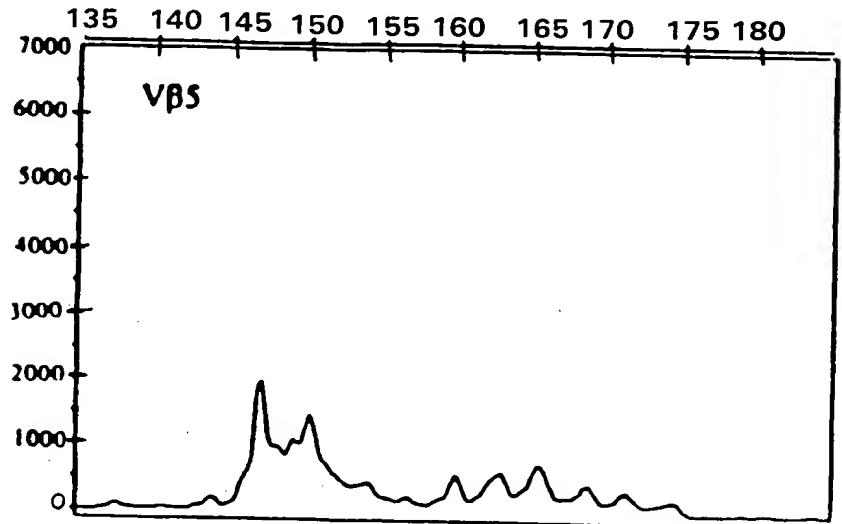
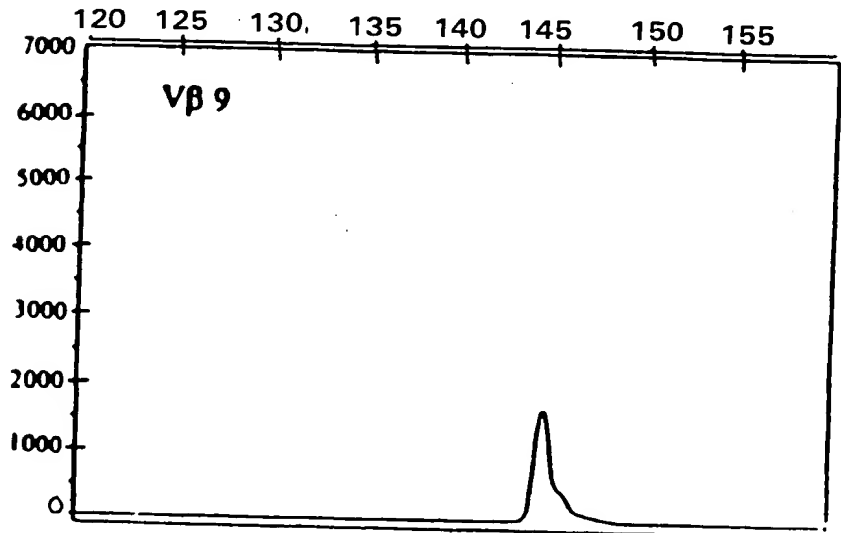
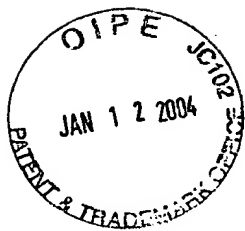


FIGURE 19C-3





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FIGURE 19C-4

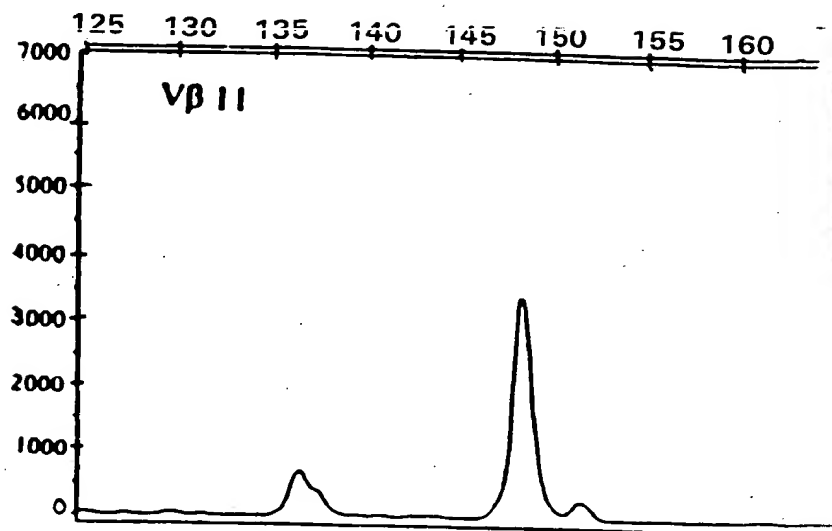
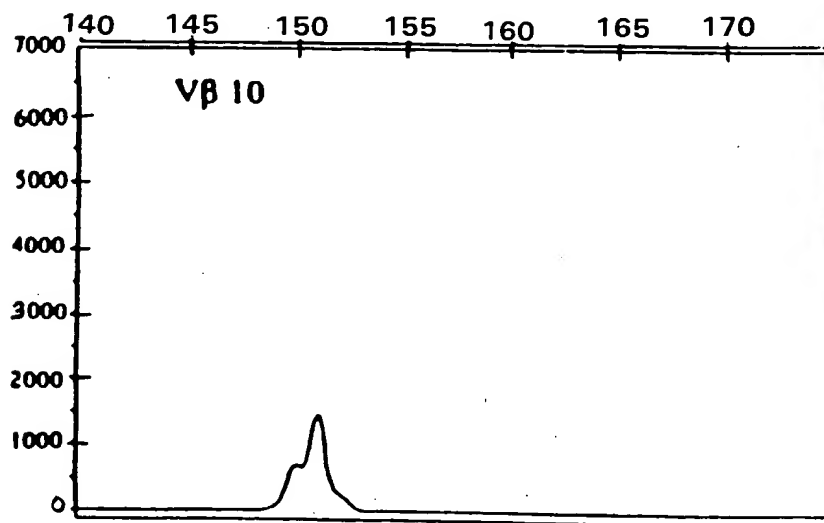


FIGURE 19C-5

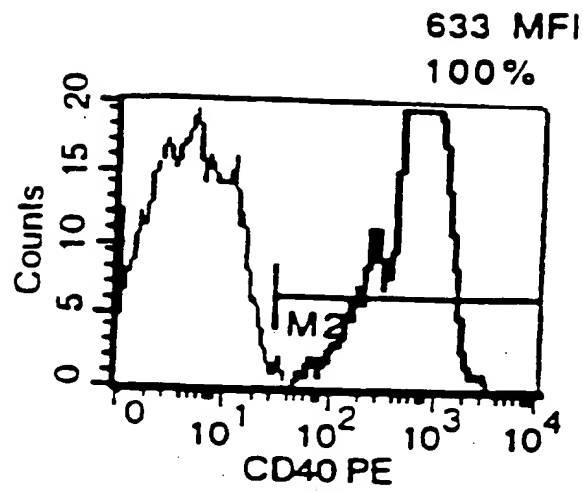




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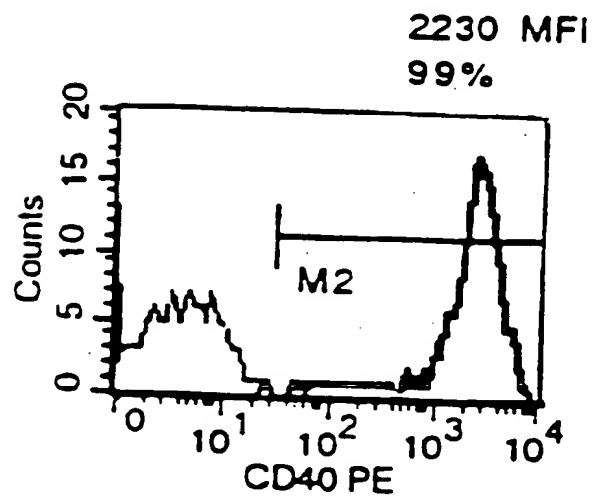
FIGURE 20A

CD40



APC+tat-DR4

FIGURE 20B



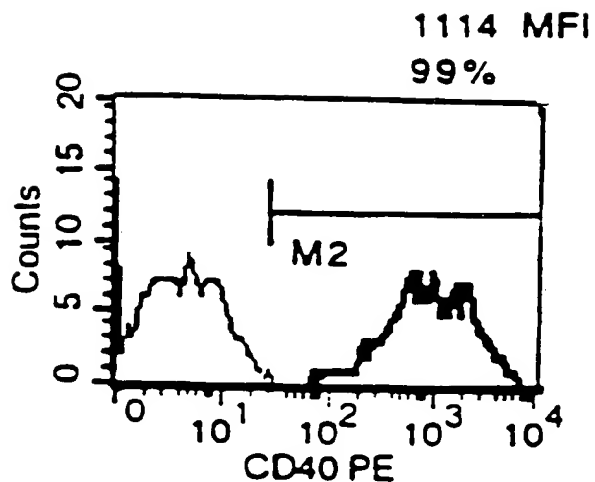
Th+APC+tat-DR4



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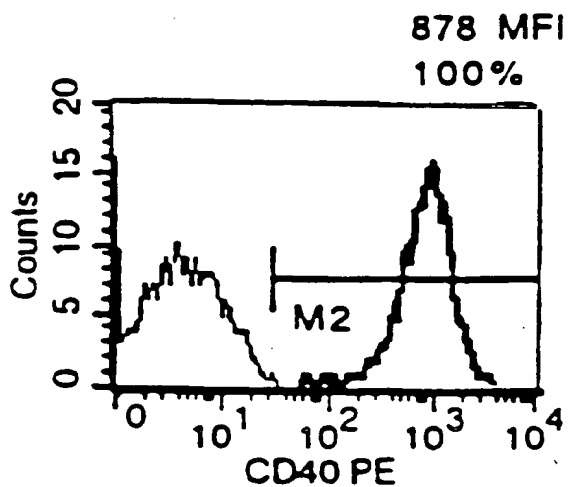
FIGURE 20C

CD40



Th+Ts+APC+tat-DR4

FIGURE 20D



Ts+APC+tat-DR4

FIGURE 20E

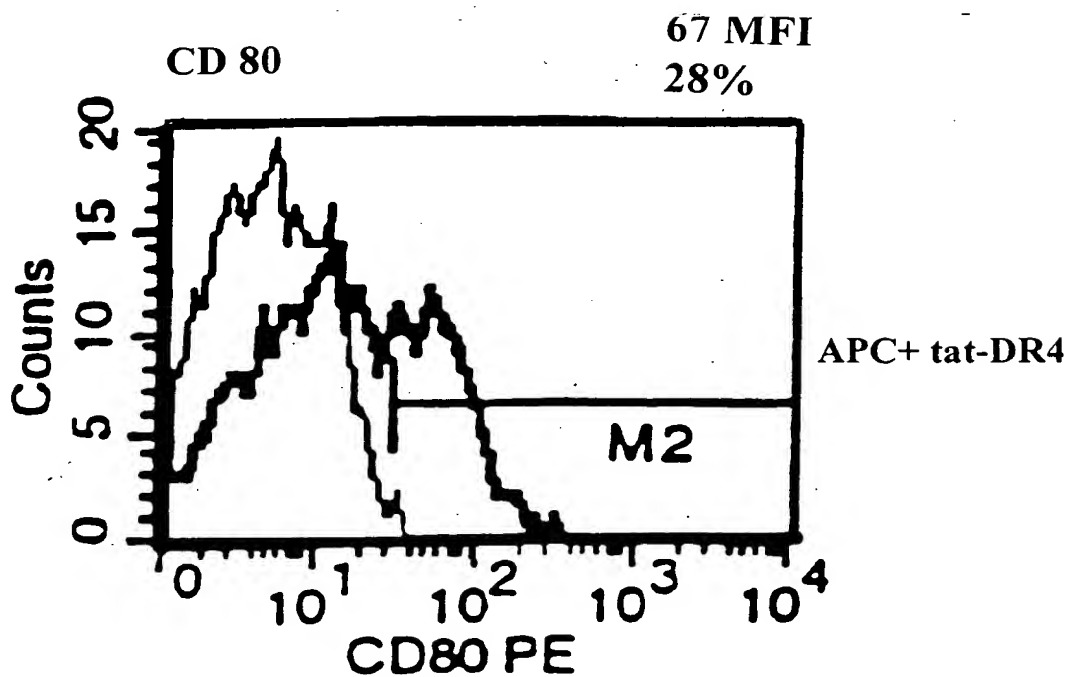


FIGURE 20F

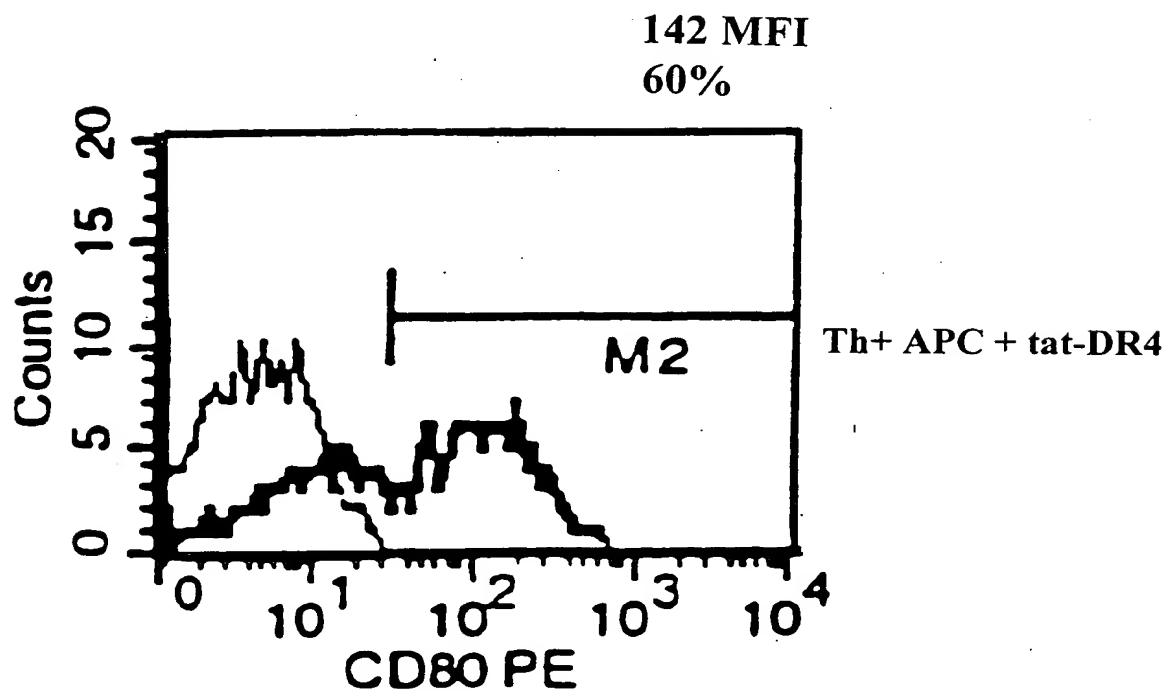


FIGURE 20G

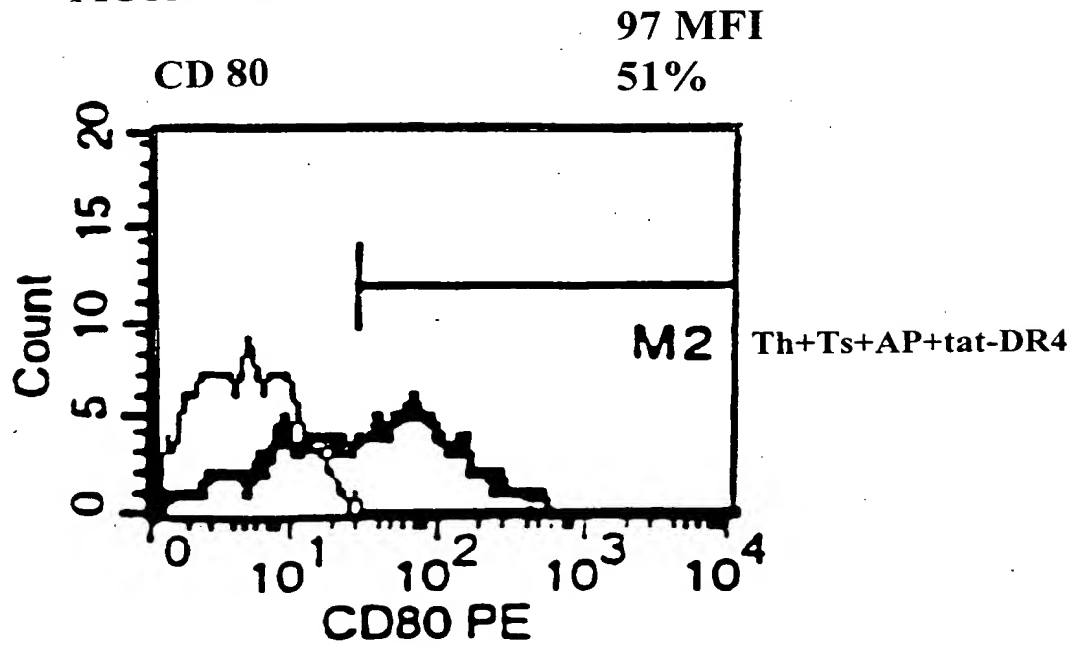
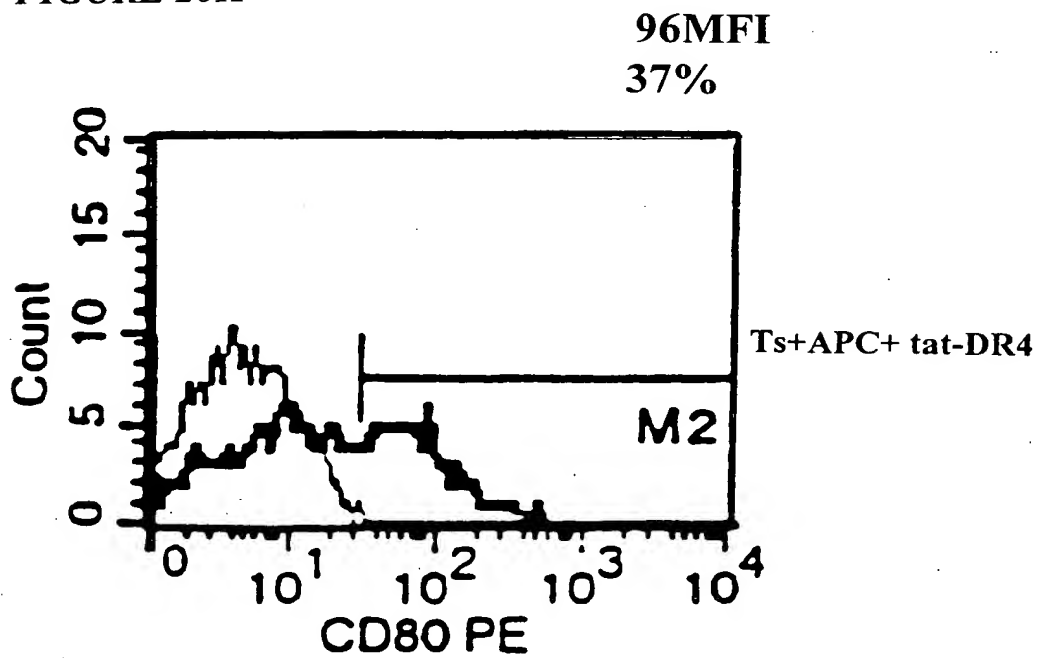


FIGURE 20H



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FIGURE 20I

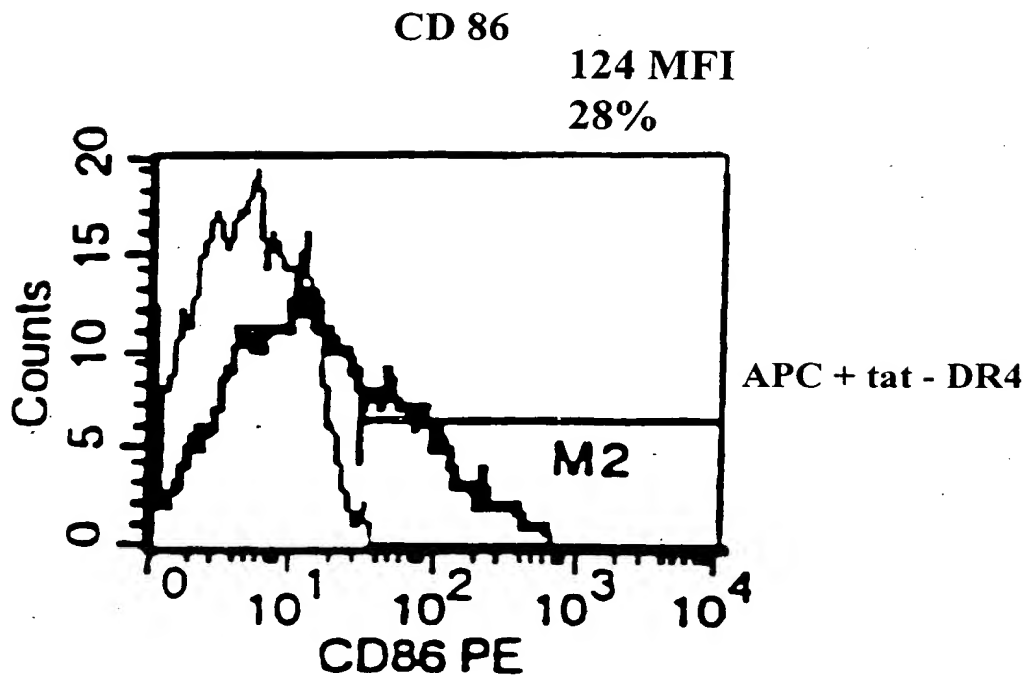
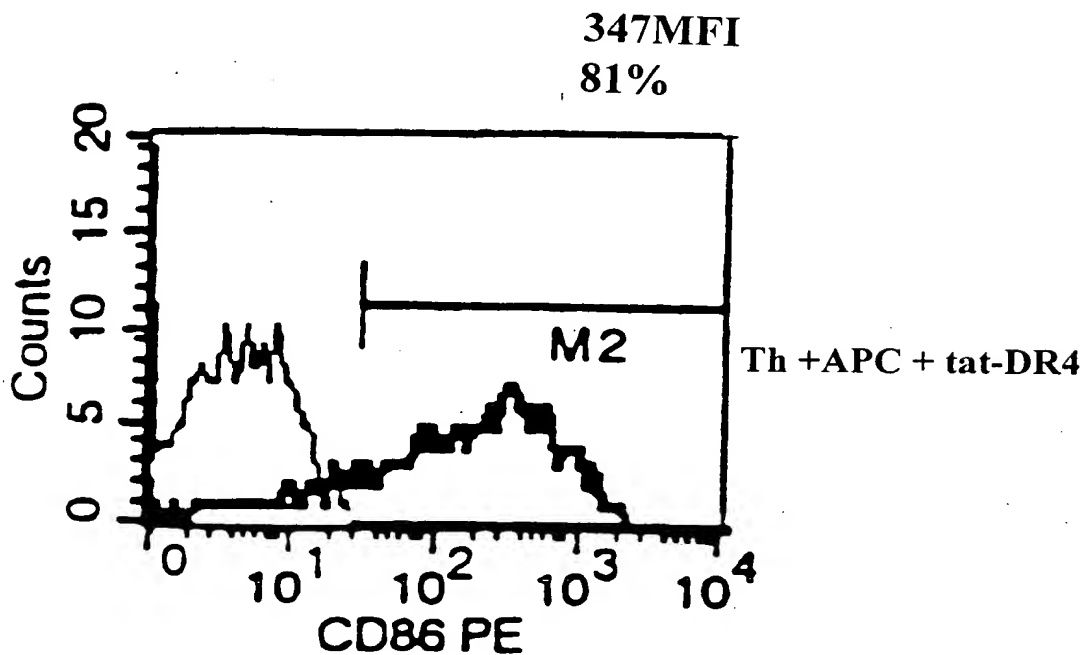


FIGURE 20J





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FIGURE 20K

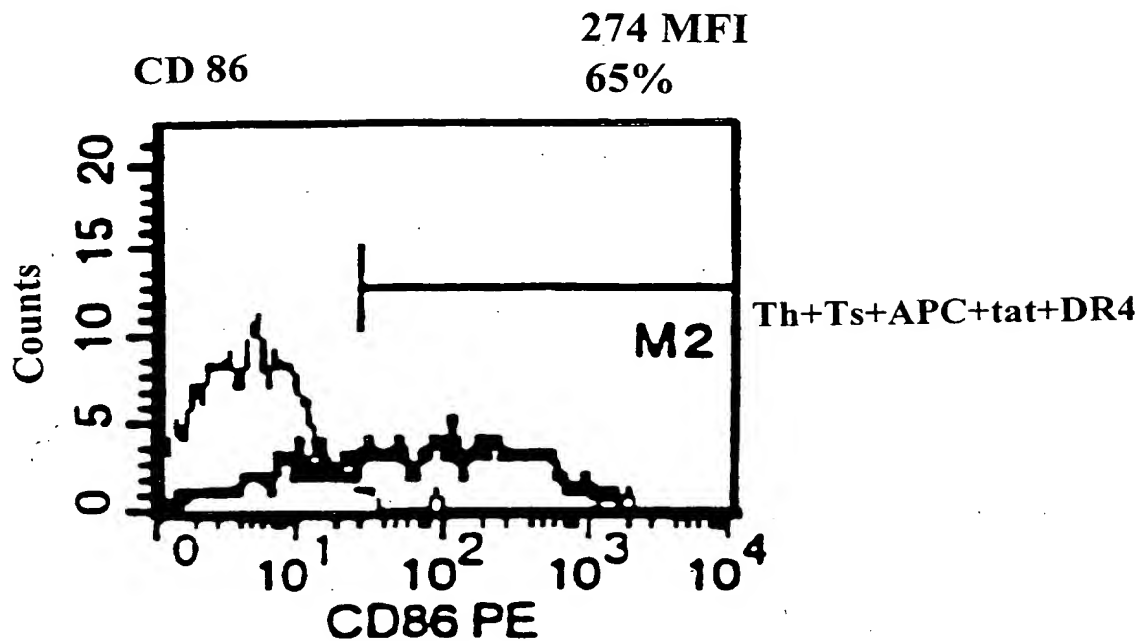
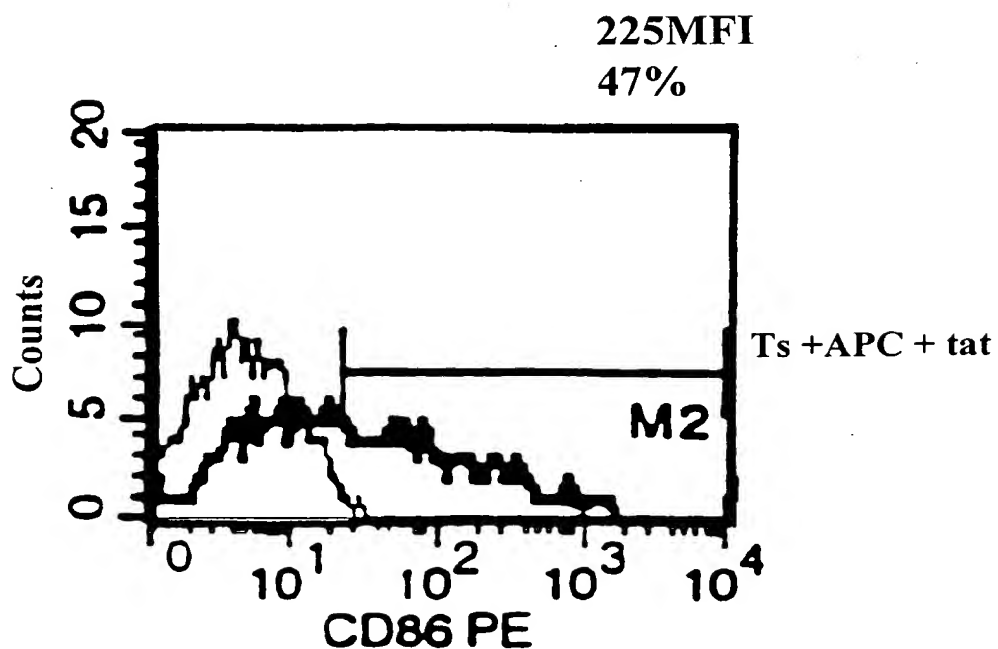


FIGURE 20L





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FIGURE 21A

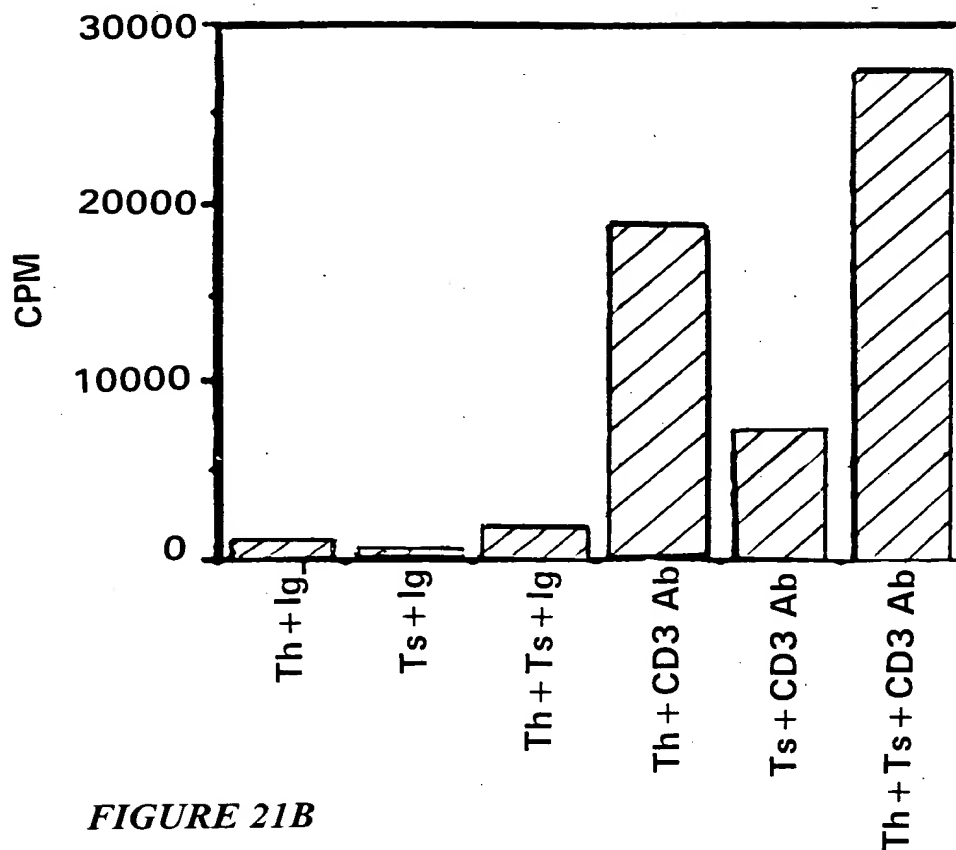
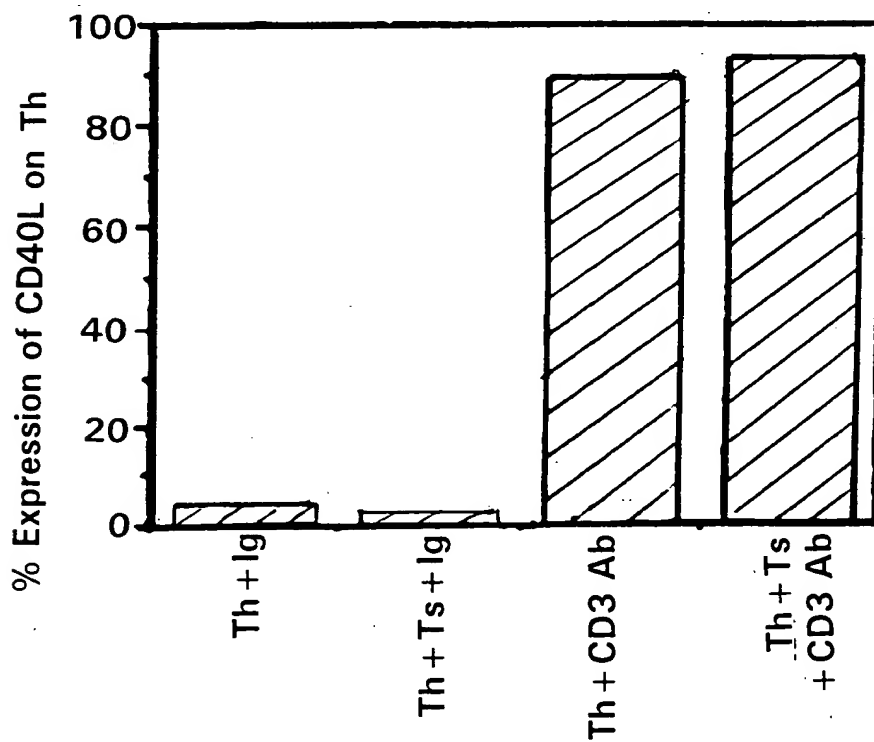


FIGURE 21B



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FIGURE 21C

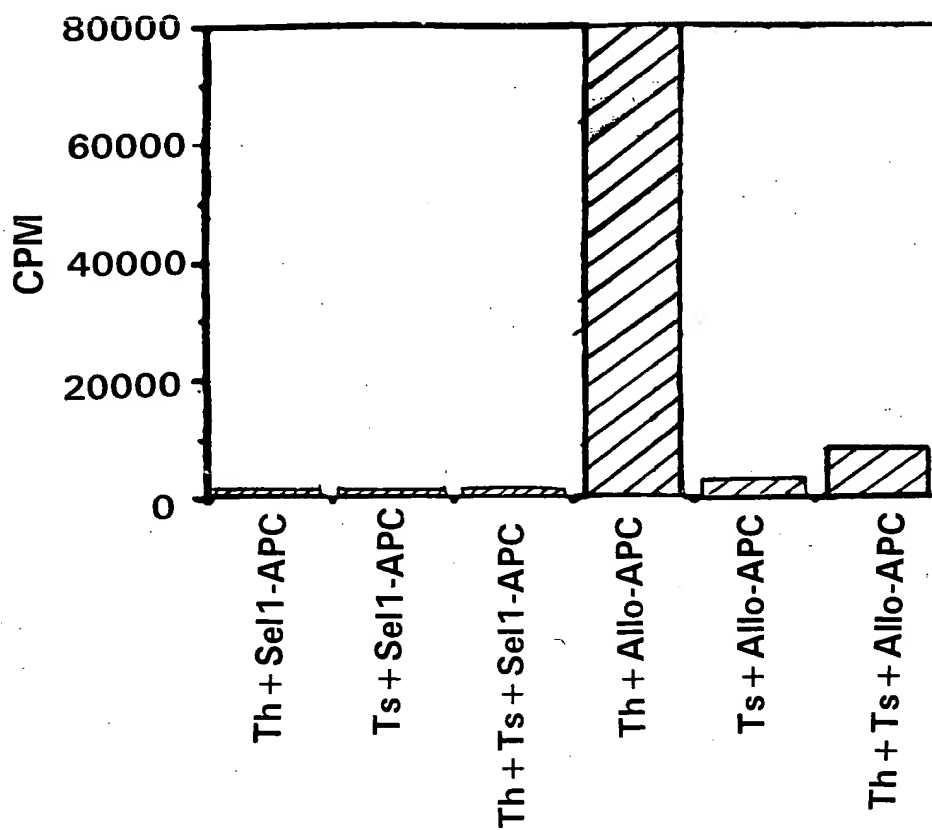
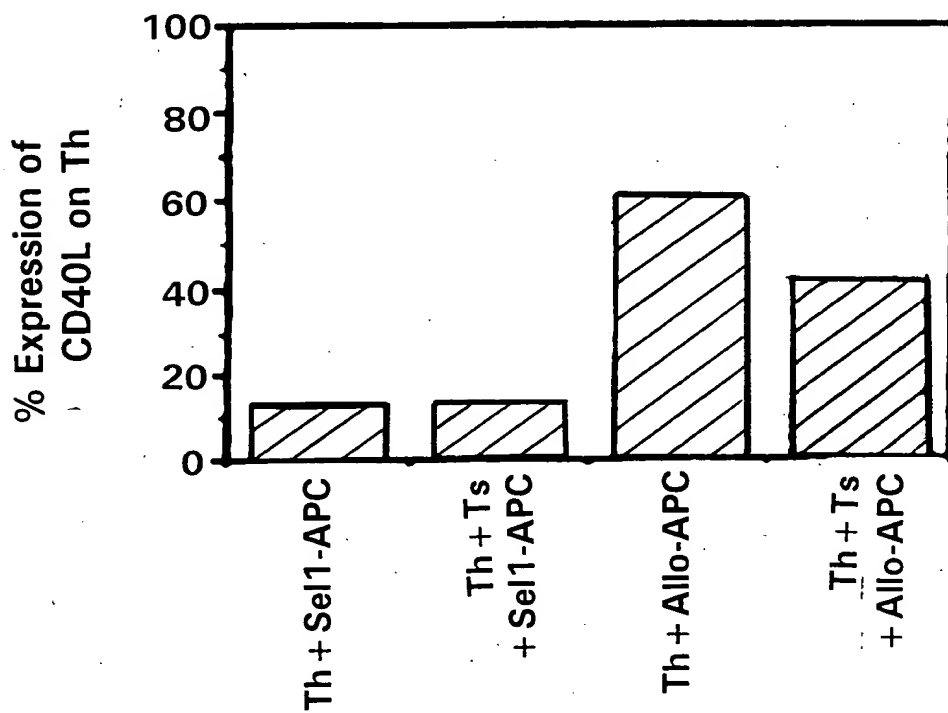


FIGURE 21D



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FIGURE 22

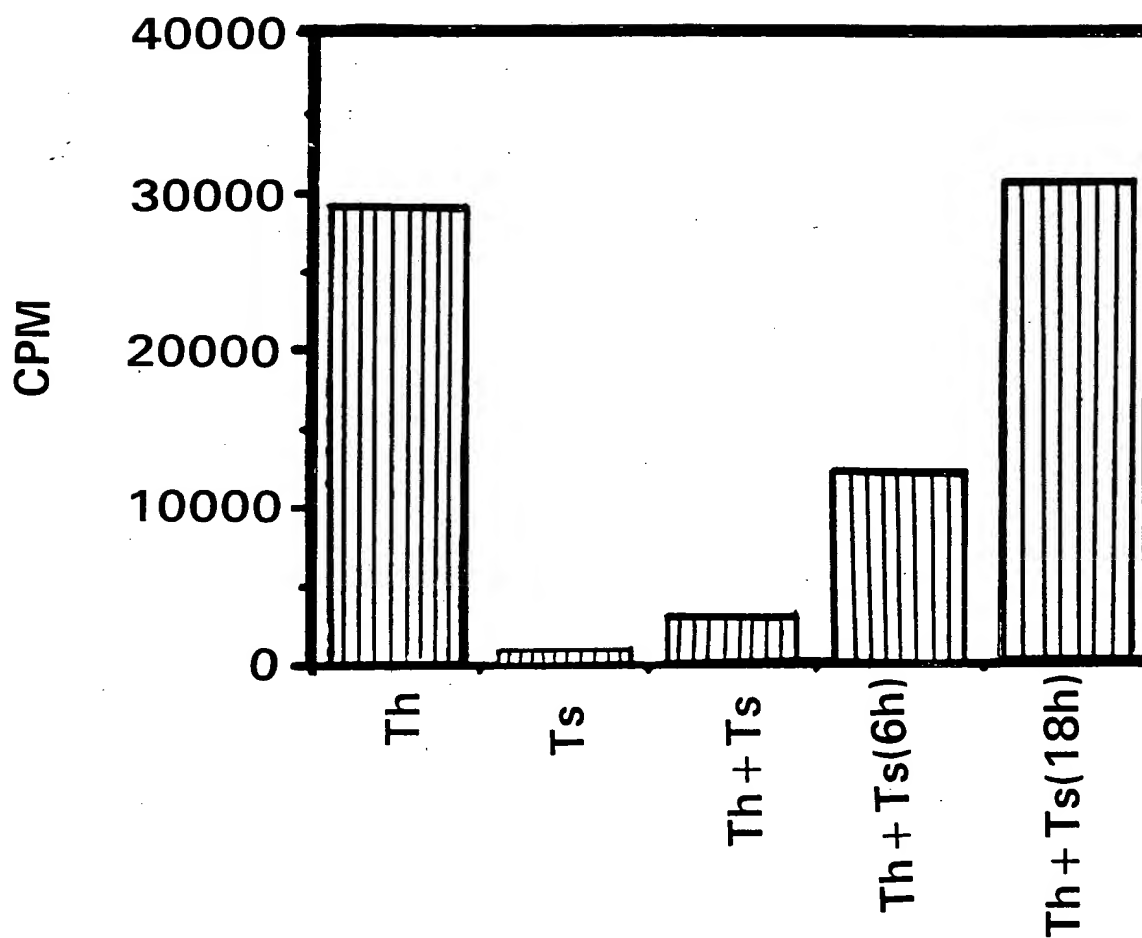


FIGURE 23

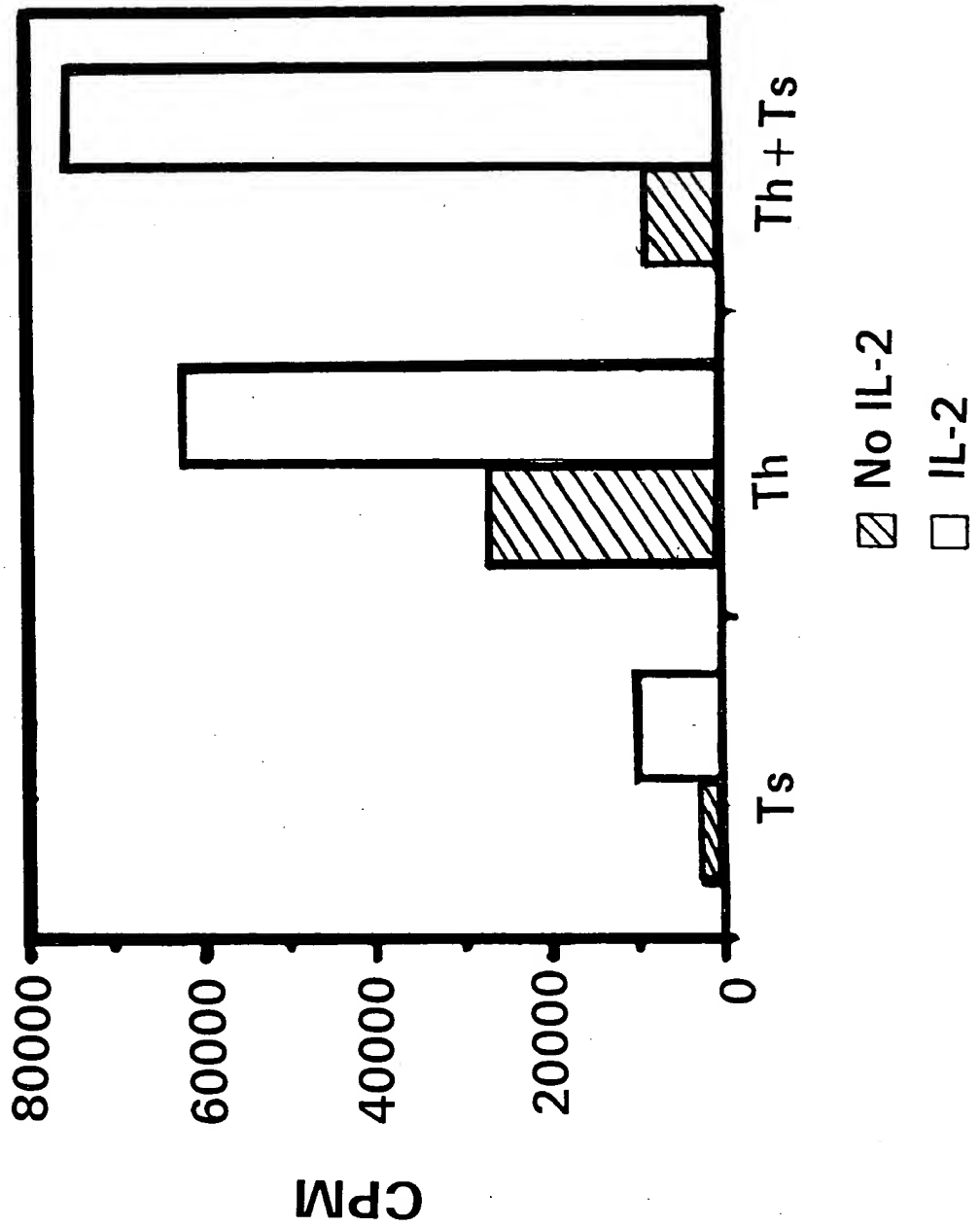
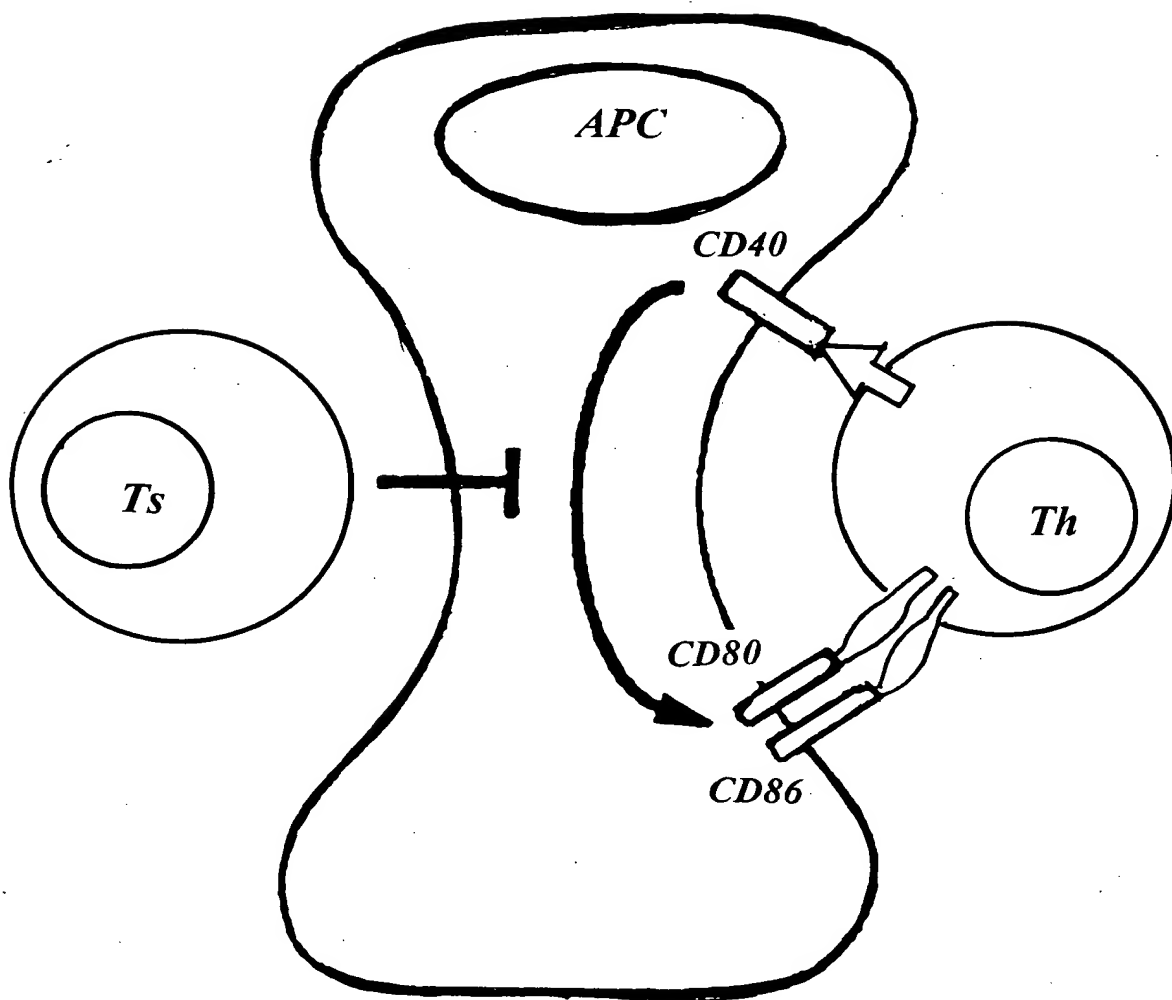
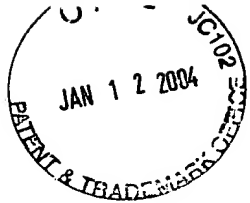


FIGURE 24

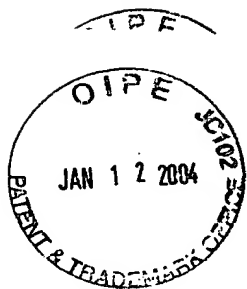




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FIGURE 25 HLA A, B, and DR Antigen Values and Split Equivalences

A Locus	Equivalent	B Locus	Equivalent	DR Locus	Equivalent
1	1	5	5	1	1
2	2	7	7	2	2,15,16
3	3	8	8	3	3,17,18
9	9	12	12	4	4
10	10.66	13	13	5	5,11,12
11	11	14	14,64,65	6	6,13,14
19	19.74	15	15,75,76,77	7	7
23	23	16	16	8	8
24	24	17	17.58	9	9
25	25	18	18	10	10
26	26	21	21	11	11,5
28	26,68,69	22	22,54,55,56	12	12,5
29	29	27	27	13	13,6
30	30	35	35	14	14,6
31	31	37	37	15	15,2
32	32	38	38	16	16,2
33	33	39	39	17	17,3
34	34	40	40,61	18	18,3
36	36	41	41	51	51
43	43	42	42	52	52
66	66,10	44	44	53	53
68	68,28	45	45	*103	103
69	69,28	46	46	*1403	1403
74	74,19	47	47	*1404	1404
80	80	48	48	**99	99
*203	203	49	49		
*210	210	50	50		
*2403	2403	51	51		
**99	99	52	52		
		53	53		
		54	54,22		
		55	55,22		
		56	56,22		
		57	57		
		58	58,17		
		59	59		
		60	60		
		61	61,40		
		62	62		
		63	63		
		64	64,14		
		65	65,14		
		67	67		
		70	70,71,72		
		71	71,70		
		72	72,70		
		73	73		
		75	75,15		
		76	76,15		
		77	77,15		
		*703	703		
		*3901	3901		
		*3902	3902		
		*4005	4005		
		*5102	5102		
		*5103	5103		
		*7801	7801		
		*8101	8101		
		**99	99		** Code means not tested



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FIGURE 26A

	1	10	20	30	40	50	60	70	80	90	100	
DRB1*0101	GDTRPRFLWQLKFECHFFNGTERVLLERCITYNQEESVRFDSDVGEYRAVTELGRPDAEYWNSQK											
	DLLEQRRAAVDTYCRHNYGVGESFTVQRRVEPKVTVY											
DRB1*01021	_____											AV_____
DRB1*01022	*****_____											
AV*****												
DRB1*0103	_____											I-DE_____
DRB1*0104	_____											N_____V_____
DRB1*15011	P-R		F-D-YF			F			I-A		V_____Q_____	
DRB1*15012	*****P-R		F-D-YF			F			I-A		V_____	

DRB1*15021	P-R		F-D-YF			F			I-A		Q_____	
DRB1*15022	*****		F-D-YF			F			I-A		_____	

DRB1*15023	*****P-R		F-D-YF			F			I-A		_____	

DRB1*1503	P-R		F-D-HF			F			I-A		V_____Q_____	

DRB1*1504	*****P-R		F-D-YF			F			F-A		V_____	

DRB1*1505	*****P-R		F-D-YF			F			A		V_____	

DRB1*1506	*****P-R		F-D-YF			F-A			I-A		V-	

DRB1*16011	P-R		F-D-YF			F-D			Q_____			
DRB1*16012	*****P-R		F-D-YF			F-D			_____			

DRB1*16021	P-R		F-D-YF			D			Q_____			
DRB1*16022	*****P-R		F-D-YF			D			_____			

DRB1*1603	P-R		F-D-YF			F-D-A			Q_____			
DRB1*1604	*****P-R		F-D-YF			F-D-L			_____			

DRB1*1605	*****P-R		F-D-YF			I-D			_____			

DRB1*1607	*****P-R		FPD-YF			I-D			_____			

DRB1*1608	*****P-R		F-D-YF			N		F-D			_____	

DRB1*03011	EYSTS		Y-D-YFH			N		F		K-GR-N_____V_____		
-H-												
DRB1*03012	*****EYSTS		Y-D-YFH			N		F		K-GR-N_____V_____		
-*****												



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FIGURE 26B

DRB1*03021 —EYSTS—F—YFH—N—K-GR-N—
H—
DRB1*03022 —EYSTS—F—YFH—N—K-GR-N—
H—**
DRB1*0303 *****YSTS—F—YFH—N—K-GR-N—V—
—*****
DRB1*0304 *****EYSTS—Y-D-YFH—F—K-GR-N—V—

DRB1*0305 *****EYSTS—Y-D-YFH—N—F—K-GR-N—
—*****
DRB1*0306 *****EYSTS—Y-D-YFH—N—K-GR-N—V—
—*****
DRB1*0307 —EYSTS—F-D-YFH—N—F—K-GR-N—V—
-H—
DRB1*0308 —EYSTS—Y-D-YFH—N—F—E—K-GR-N—V—
-H—
DRB1*0309 *****EYSTS—Y-D-YFH-R-N—F—K-GR-N—
—*****
DRB1*0310 —EYSTS—Y-D-YFH—N—F—A-H—K-GR-N—V—
—H—
DRB1*0311 *****EYSTS—Y-D-YFH—N—F—K-GQ-N—V—
—*****
DRB1*04011 —E-V-H—F-D-YF-H—Y—K—Y-
E—
DRB1*04012 *****E-V-H—F-D-YF-H—Y—K—

DRB1*0402 —E-V-H—F-D-YF-H—Y—I-DE—V—

DRB1*0403 —E-V-H—F-D-YF-H—Y—E—V—Y-
E—
DRB1*0404 —E-V-H—F-D-YF-H—Y—V—Y-
E—
DRB1*04051 —E-V-H—F-D-YF-H—Y—S—

DRB1*04052 *****E-V-H—F-D-YF-H—Y—S—

DRB1*0406 —E-V-H—F-D-YF-H—E—V—Y-
E—
DRB1*0407 —E-V-H—F-D-YF-H—Y—E—

DRB1*0408 *****E-V-H—F-D-YF-H—Y—

DRB1*0409 *****F-D-YF-H—Y—S—K—

DRB1*0410 *****E-V-H—F-D-YF-H—Y—S—V—

DRB1*0411 —E-V-H—F-D-YF-H—Y—S—E—V—Y-
E—
DRB1*0412 *****E-V-H—F-D-YF-H—Y—S—I-D-L—V—

DRB1*0413 *****H—F-D-YF-H—Y—K—V—

DRB1*0414 *****F-D-YF-H—Y—I-DE—



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FIGURE 26C

DRB1*0415 *****E-V-H-----F-D-YF-H--Y-----E-----F-D-----V-

DRB1*0416 *****-----F-D-YF-H--Y-----Q-----K-----

DRB1*0417 *****-----F-D-YF-H--Y-----S-----E-----

DRB1*0418 *****-----F-D-YF-H--Y-----I-D-L-----V-----

DRB1*0419 *****H-----F-D-YF-H-----

DRB1*0420 *****-----F-D-YF-H-----E-----

DRB1*0421 *****E-V-H-----F-D-YF-H-----K-----

DRB1*0422 *****E-V-H-----F-D-YF-H--Y-----K-GR-N-----V-----

DRB1*0423 *****E-V-H-----F-D-YF-H--Y-----V-R-----

DRB1*0424 *****E-V-H-----F-D-YF-H--Y-----S-----R-----

DRB1*0425 *****E-V-H-----F-D-YF-H--Y-----F-D-L-----V-----

DRB1*0426 *****E-V-H-----F-D-YF-H--Y-----T-----K-----

DRB1*0427 *****E-V-H-----F-D-YF-H--Y-----E-----AV-----

DRB1*11011 -----EYSTS-----F-D-YF--Y-----F-----E-----F-D-----
H-----
DRB1*11012 -----EYSTS-----F-D-YF--Y-----F-----E-----F-D-----
H-----
DRB1*11013 *****EYSTS-----F-D-YF--Y-----F-----E-----F-D-----

DRB1*1102 -----EYSTS-----F-D-YF--Y-----F-----E-----I-DE-----V-----
H-----
DRB1*1103 -----EYSTS-----F-D-YF--Y-----F-----E-----F-DE-----V-----
H-----
DRB1*11041 -----EYSTS-----F-D-YF--Y-----F-----E-----F-D-----V-----

DRB1*11042 -----EYSTS-----F-D-YF--Y-----F-----E-----F-D-----V-----
H-----
DRB1*1105 ****EYSTG-----F-D-YF--Y-----F-----E-----F-D-----

DRB1*1106 *****EYSTS-----F-D-YF--Y-----F-----E-----F-D-----AV-----

DRB1*1107 *****EYSTS-----F-D-YF--Y-----F-----E-----K-GR-N-----V-----

DRB1*11081 *****S-----F-D-YF--Y-----F-----E-----D-----

DRB1*11082 *****S-----F-D-YF--Y-----F-----E-----D-----

DRB1*1109 *****-----F-D-YFH--N-----F-----E-----F-D-----

DRB1*1110 *****-----F-D-YFH--F-----F-----E-----F-D-----



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FIGURE 26D

DRB1*1111 *****S-----F-D-YF---Y-----F-----E-----F-DE-----

DRB1*1112 *****-----F-D-YF---F-----F-----E-----F-D-----

DRB1*1113 -----EYSTS-----F-D-YFH---F-----F-----E-----R-----V-----

DRB1*1114 -----EYSTS-----F-D-YF---Y-----F-----E-----I-DE-----

DRB1*1115 -----EYSTS-----F-D-YF---DL-----F-----E-----F-D-----
H-----
DRB1*1116 *****-EYSTS-----F-D-YFH---N-----F-----E-----I-DE-----V-----

DRB1*1117 -----EYSTS-----F-D-YFH---F-----E-----R-E-----V-----
H-----
DRB1*1118 *****-EYSTS-----F-D-YF---Y-----F-----E-----I-D-----V-----

DRB1*1119 *****-EYSTS-----F-D-YF---Y-----F-----E-----I-D-----

DRB1*1120 *****-EYSTS-----F-D-YFH---N-----F-----E-----I-DE-----

DRB1*1121 *****-EYSTS-----F-D-YF---Y-----F-----E-----I-DE-----AV-

DRB1*1122 *****-E-V-H-----F-D-YF---Y-----F-----E-----F-D-----

DRB1*1123 *****-EYSTS-----F-D-YF---Y-----F-----E-----F-D-L-----

DRB1*1124 *****-EYSTS-----F-D-YF---D-----F-----E-----F-D-----

DRB1*1125 *****-EYSTS-----F-D-YF---Y-----F-----E-----F-D-L-----V-----

DRB1*1126 *****-EYSTS-----F-D-YF---Y-----F-----E-----

DRB1*1127 *****-EYSTS-----F-D-YF---Y-----F-----E-----F-D---N-----

DRB1*1128 *****-EYSTS-----F-D-YF---N-----F-----E-----F-D-----

DRB1*1129 *****-EYSTS-----F-D-YF-----F-----E-----F-D-----

DRB1*1130 *****-EL-S-----F-D-YF---Y-----F-----E-----F-D-----

DRB1*1131 -----EYSTS-----F-D-YF---Y-----F-----E-H---I-D-----
H-----
DRB1*1201 -----EYSTG-Y-----HFH---LL-----F-----V-S---I-D-----AV-----
-H-----
DRB1*12021 *****-EYSTG-Y-----HFH---LL-----F-----V-S---F-D-----
AV*****
DRB1*12022 *****-EYSTG-Y-----HFH---LL-----F-----V-S---F-D-----AV-

DRB1*12032 *****-EYSTG-Y-----HFH---LL-----F-----V-S---I-D-----V-----

DRB1*1204 *****EYSTG-Y-----HFH---LL-----F-----E-----I-D-----
AV*****
DRB1*1205 *****-EYSTG-Y-----HFH---FL-----F-----V-S---I-D-----AV-----



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FIGURE 26E

DRB1*1301 -----EYSTS-----F-D-YFH-N-----F-----I-DE-----V-----
H-----
DRB1*1302 -----EYSTS-----F-D-YFH-N-----F-----I-DE-----
H-----
DRB1*13031 -----EYSTS-----F-D-YF-Y-----S-----I-DK-----
H-----*
DRB1*13032 *****-EYSTS-----F-D-YF-Y-----S-----I-DK-----

DRB1*1304 -----EYSTS-----F-D-YF-Y-----F-----S-----I-DE-----V-----
H-----*
DRB1*1305 *****-EYSTS-----F-D-YFH-N-----F-----F-D-----

DRB1*1306 *****-EYSTS-----F-D-YFH-N-----F-----I-D-----V-----

DRB1*13071 *****-EYSTS-----F-D-YF-Y-----F-D-----

DRB1*1308 *****-EYSTS-----F-D-YFH-F-----I-DE-----V-----

DRB1*1309 *****-EYSTS-----F-D-YFH-N-----F-----I-A-----V-----

DRB1*1310 *****-EYSTS-----F-D-YFH-N-----F-----I-DK-----V-----

DRB1*1311 *****-EYSTS-----F-D-YF-Y-----F-----F-D-----V-----

DRB1*1312 *****-EYSTS-----F-D-YF-Y-----S-----I-D-----

DRB1*1313 *****-EYSTS-----F-D-YF-Y-----S-----I-D-L-----

DRB1*1314 *****-EYSTS-----F-D-YF-Y-----F-----F-D-----

DRB1*1315 *****-EYSTS-----F-YFH-N-----F-----I-DE-----V-----

DRB1*1316 *****EYSTS-----F-D-YFH-N-----F-----I-DE-----D-----

DRB1*1317 -----EYSTG-Y-----F-D-YF-Y-----F-----I-DE-----V-----
H-----
DRB1*1318 *****-EYSTS-----F-D-YFH-N-----F-----F-D-L-----V-----

DRB1*1319 -----EYSTS-----F-YFH-F-----I-DE-----V-----H-----

DRB1*1320 *****-EYSTS-----F-D-YFH-N-----F-----DE-----V-----

DRB1*1321 -----EYSTS-----F-D-YF-Y-----F-----S-----F-D-----H-----

DRB1*1322 ****-EYSTS-----F-D-YF-Y-----F-----I-DE-----V-----

DRB1*1323 *****-EYSTS-----F-D-YF-Y-----F-----I-DE-----

DRB1*1324 *****-EYSTS-----F-D-YF-Y-----F-----F-DE-----V-----

DRB1*1325 *****-EYSTS-----F-D-YF-Y-----F-----D-----

DRB1*1326 *****-EYSTS-----F-YFH-N-----F-D-----



FIGURE 26F

DRB1*1327 *****EYSTS-----Y-D-YFH-N-----F-----I-DE-----V-----

DRB1*1328 *****EYSTS-----F-D-YFH-N-----F-----I-DE-----R-V-----

DRB1*1329 *****EYSTS-----F-D-YFH-N-----F-----DE-----

DRB1*1330 *****EYSTS-----F-D-YF-Y-----F-----S-----I-D-----

DRB1*1331 *****EYSTS-----F-D-YFH-N-----F-----V-----I-DE-----

DRB1*1332 *****EYSTS-----F-D-YFH-N-----S-----I-DE-----V-----

DRB1*1333 *****EYSTS-----F-D-YF-Y-----S-----I-DK-----N-----

DRB1*1401 -----EYSTS-----F-D-YFH-F-----A-H-----R-E-----V-----

DRB1*1402 -----EYSTS-----F-YFH-N-----

DRB1*1403 -----EYSTS-----F-YFH-N-----D-L-----

DRB1*1404 *****EYSTG-Y-----F-D-YFH-F-----A-H-----R-E-----V-----

DRB1*1405 *****EYSTS-Q-----F-D-YFH-F-----R-E-----V-----

DRB1*1406 *****EYSTS-----F-YFH-N-----V-----

DRB1*1407 *****EYSTS-----F-D-YFH-F-----A-H-----R-E-----

DRB1*1408 *****EYSTS-----F-D-YFH-F-----H-----R-E-----V-----

DRB1*1409 *****EYSTS-----F-D-YFH-N-----

DRB1*1410 *****E-V-H-----F-D-YFH-F-----A-H-----R-E-----V-----

DRB1*1411 *****EYSTG-Y-----F-D-YFH-F-----E-----R-E-----
V*****
DRB1*1412 *****S-----F-YFH-N-----D-L-----
V*****
DRB1*1413 *****EYSTS-----F-YFH-N-----S-----

DRB1*1414 *****EYSTS-----F-D-YFH-F-----R-E-----

DRB1*1415 *****STG-Y-----F-D-YFH-F-----F-D-L-----V-----

DRB1*1416 *****EYSTS-----F-D-YFH-F-----A-H-----I-DE-----V-----

DRB1*1417 *****EYSTS-----F-D-YFH-N-----F-----V-----

DRB1*1418 *****EYSTS-----F-YFH-N-----R-E-----V-----

DRB1*1419 -----EYSTS-----F-YFH-N-----K-----

DRB1*1420 *****EYSTS-----F-YFH-F-----V-----



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FIGURE 26G

DRB1*1421 *****EYSTS-----F-D-YFH-N-----F-----K-----V-

DRB1*1422 *****EYSTS-----F-D-YFH-F-----A-H-F-D-----

DRB1*1423 *****EYSTS-----F-D-YFH-F-----R-E-----V-----

DRB1*1424 *****EYSTS-----F-YFH-N-----I-A-----
H-----
DRB1*1425 *****EYSTS-----F-D-YF-Y-----A-H-F-D-----

DRB1*1426 *****EYSTS-----QF-D-YFH-F-----A-H-R-E-----V-----

DRB1*1427 *****EYSTS-----F-YFH-N-----F-D-L-----

DRB1*1428 *****EYSTG-Y-----F-D-YFH-F-----A-H-R-E-----
AV*****
DRB1*1429 *****EYSTS-----F-YFH-N-----AV-----

DRB1*1430 *****EYSTS-----F-D-YFH-N-----F-----

DRB1*1431 *****EYSTG-Y-----F-D-YFH-F-----A-H-R-----V-----

DRB1*0701 -Q-G-YK-QF-LF-F-----V-S-I-D-GQ-V-----
H-E-----
DRB1*0703 *****G-YK-QF-SLF-F-----V-S-I-D-GQ-V-----

DRB1*0801 -----EYSTG-Y-----F-D-YF-Y-----S-F-D-L-----

DRB1*08021 -----EYSTG-Y-----F-D-YF-Y-----F-D-L-----
H-----
DRB1*08022 *****EYSTG-Y-----F-D-YF-Y-----F-D-L-----
-H-----
DRB1*08032 -----EYSTG-Y-----F-D-YF-Y-----S-I-D-L-----
H-----
DRB1*08041 -----EYSTG-Y-----F-D-YF-Y-----F-D-L-V-----
H-----*
DRB1*08042 *****F-D-YF-Y-----F-D-L-V-----

DRB1*08043 *****EYSTG-Y-----F-D-YF-Y-----F-D-L-V-----

DRB1*0805 *****EYSTG-Y-----F-D-YF-Y-----S-F-D-----

DRB1*0806 *****EYSTG-Y-----F-D-YF-Y-----S-F-D-L-V-----

DRB1*0807 *****EYSTG-Y-----F-D-YF-Y-----V-F-D-L-----

DRB1*0808 *****EYSTG-Y-----F-D-YF-Y-----A-H-F-D-L-----

DRB1*0809 *****-Y-----F-D-YFH-F-----F-D-L-----

DRB1*0810 *****EYSTG-Y-----F-D-YF-Y-----S-I-D-L-V-----

DRB1*0811 *****EYSTG-Y-----F-D-YF-Y-----A-F-D-L-----



FIGURE 26H

DRB1*0812 *****EYSTG-Y---F-D-YF---Y---S---I-D-L---AV---
-*****
DRB1*0813 *****EYSTG-Y---F-D-YF---Y---D-L---

DRB1*0814 *****EYSG-Y---F-D-YF---Y---S---I-D-L---

DRB1*0815 *****EYSTG-Y---F-D-YF---Y---H---I-D-L---

DRB1*0816 *****EYSTG-Y---F-D-YF---D---S---F-D-L---

DRB1*0817 *****EYSTG-Y---F-D-YF---Y---F---S---F-D-L---

DRB1*0818 *****EYSTG-Y---F-D-YF---Y---S---I-D---

DRB1*0819 *****EYSTG-Y---F-D-YF---Y---I---I-D-L---

DRB1*09012 -Q-K-D---Y-H-G---N---V-S---F-R-E-V---
H-E---
DRB1*1001 -EEV---RVH---YA-Y---R---Q---



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FIGURE 27

	1				50
Sladra-0102	-----	-----	-----	-----	-----
Sladra-0202	-----	-----	-----	-----	-----
Sladra-0203	-----	-----	-----	-----	-----
Sladra-0101	-----	-----	-----	-----	-----
Sladra-02011	-----	-----	-----	-----	-----
Sladra-02012	-----	-----	-----	-----	-----
Consensus	VENHVIIQAE	FYLSPDKSGE	FMFDFDGDEI	FHVDMEKRET	VWRLEEFGRHF
	51				100
Sladra-0102	-----	-----	-----	-----	-----
Sladra-0202	-----	-----	-m-----	-----	-----
Sladra-0203	-----	-----	-----	-----	-----
Sladra-0101	-----	-----	-----	-----	-----
Sladra-02011	-----	-----	-m-----	-----	-----
Sladra-02012	-----	-----	-m-----	-----	-----
Consensus	ASFEAQGALA	NIAVDKANLE	ILIKRSNNTP	NTNVPPEVTV	LSDKPVELGE
	101				150
Sladra-0102	-----	-----	-----	-----	-----
Sladra-0202	-----	-----	-----	-----	-----
Sladra-0203	-----	-----	-----	-----	-----
Sladra-0101	-----	-----	-----	-----	-----
Sladra-02011	-----	-----	-----	-----	-----
Sladra-02012	-----	-----	-----	-----	-----
Consensus	PNILICFIDK	FSPPVVNVTV	LRNGSPVTRG	VSETVFLPRE	DHLFRKFHYL
	151				200
Sladra-0102	-----	-----	-----	-r-----	-----
Sladra-0202	-----	-----	-----	-----	-----
Sladra-0203	-----	-----	-----	-----	-----
Sladra-0101	-----	-----	-----	-----	-----
Sladra-02011	-----	-----	-----	-----	-----
Sladra-02012	-----	-----	-----	-----	-----
Consensus	PFMPSTEDVY	DCQVEHWGLD	KPLLKHWEFE	AQTPLPETTE	NTVCALGLIV
	201		228		
Sladra-0102	-----	-----	-----	-----	-----
Sladra-0202	-----	-----	---h---	-----	-----
Sladra-0203	-----	-----	---h---	-----	-----
Sladra-0101	-----	-----	-----	-----	-----
Sladra-02011	-----	-----	-----	-----	-----
Sladra-02012	-----	-----	-----	-----	-----
Consensus	ALVGIIVGTV	LIIGVVRKGN	ATERRGPL		

Group 01 has a leucine at residue 72 and Group 02 has a methionine.
 N other polymorphisms have been found in the alpha 1 domain.

Amino Acid Sequences of SLA DRA Alleles



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FIGURE 28

	1		2A		4A	50
Sladrb-T	--iaq--ffm	g-s-----	-----y-qky	l-----	---l--f--	
Sladrb-N	-----f-	g-a-----	-----d-y	f--d-y---	-----f-e-	
Sladrb-M	-----f-	g-----	--q-----	-----	-----	
Sladrb-Z	-----y-	-----	-----	-----y--	-----	
Sladrb-AD	-----	-----	-----	-----l--	-----	
Sladrb-C	--i-----q	-----	-----q-n	c-----y--	-----	
Sladrb-WX	-----	v-h--r----	----l--d-y	f-----	-----f--	
Sladrb-Y	--i----ffm	g-s-----	-----y-lky	l-----	---l--e-	
Consensus	RDTPPHFLHL	LKFECHFFNG	TERVRLLEQ	YNGEEFVRF	DSDVGEYRAV	
	51	6A		8A		100
Sladrb-T	-----	-----m--	k--v-----	-----	-----	
Sladrb-N	--f-----	-----fm--	k-----v--	---e-e---	-----r--	
Sladrb-M	-----n	y-----	-----	---ts---	-----r--	
Sladrb-Z	-----v--d	-----	-----	---ts---	-----r--	
Sladrb-AD	-----d	-----	-----	-----	-----	
Sladrb-C	-----	r-----	---a-----	-----	-----	
Sladrb-WX	-----	-----i--d	s--s-----i	-----	-----	
Sladrb-Y	-----	-----	---ek-----	---gvs-s-	-----	
Consensus	TELGRPDAKY	WNSQKDLLEQ	RRAEVDTYCR	HNYRILDTFL	VPRRAEPTVT	
	101					150
Sladrb-T	-----	-----	-----	-----	-----	
Sladrb-N	-----	-----	-----	-----	-----	
Sladrb-M	-----	-----	-----	-----	-----	
Sladrb-Z	-----	-----	-----	-----	-----	
Sladrb-AD	-----	-----	-----	-----	-----	
Sladrb-C	-----	-----	-----	-----	-----	
Sladrb-WX	-----	-----	-----	-----	-----	
Sladrb-Y	-----	-----	-----	-----	-----	
Consensus	VYPAKTQPLQ	HHNLLVCSVT	GFYPGHVEVR	WFRNGQEEAA	GVVSTGLIPN	
	151					200
Sladrb-T	-----	-----	-----	-----	-----	
Sladrb-N	-----	-----	-t-----	-----	-----	
Sladrb-M	-----	-----	-----	-----	-----	
Sladrb-Z	-----	-----	-----	-----	-----	
Sladrb-AD	-----	-----	-----	-----	-----	
Sladrb-C	-----	-----	-----	-----	-----	
Sladrb-WX	-----	-----	-----	-----	-----	
Sladrb-Y	-----	-----	-----	-----	-----	
Consensus	GDWTFQTMVM	LETVPQSGEV	YSCRVEHPSL	TSPVTVEWRA	RSESAQGRKM	
	201			237		
Sladrb-T	--v-----	-----	-----	-----	-----	
Sladrb-N	-----	-----	-----	-----	-----	
Sladrb-M	-----	-----	-----	-----	-----	
Sladrb-Z	--v-----	-----	-----	-----	-----	
Sladrb-AD	-----	-----	-----	-----	-----	
Sladrb-C	--v-----	-----	-----	-----	-----	
Sladrb-WX	-----	-----	-----	-----	-----	
Sladrb-Y	--v-----	-----	-----	-----	-----	
Consensus	SGIGGFVLGL	LFVAVGLFIY	FKNQKGRPAL	QPTGLLS		

Amino Acid Sequence of SLA-DRB Alleles

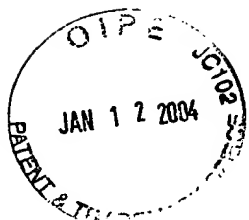


FIGURE 29

	1					50
Sladqa-02021	-----	-----	-----	-----g	-----	
Sladqa-02022	-----	-----	-----	-----g	-----	
Sladqa-02023	-----	-----	-----	-----g	-----	
Sladqa-0201	-----	-----	-----	-----	-----	
Sladqa-0101	-----	-----	-r-----	-q-----	-----r--	
Sladqa-0103	-----	-----	-r-f-----	-q-----	-----r--	
Sladqa-0102	-----	-----	-f-----	-----	-----r--	
Consensus	EDIAADHVAS	YGLNVYQSYG	PSGYTTFEFD	GDEEFYVDLE	RKETVWQLPL	
	51					100
Sladqa-02021	----r-----	-----	-----	-----	-----	
Sladqa-02022	----r-----	-----	-----	-----	-----	
Sladqa-02023	----r-----	-----	-----	-----	-----	
Sladqa--201	-----	-----	-----	-----	-----	
Sladqa-0101	--e-----	-----l-	----vt---	-----k--	-----s---	
Sladqa-0103	--e-----	-----l-	----vt---	-----k--	-----s---	
Sladqa-0102	--e-----	-----l-	----vt---	-----	-----s---	
Consensus	FSKFTSFDPO	GALRNIAAK	HNLNLIKRS	NNTAAVNQVP	EVTVPKSPV	
	101					150
Sladqa-02021	-----	-----	-----	-----	-----	
Sladqa-02022	-----	-----	-----	-----	-----	
Sladqa-02023	-----	-----	-----	-----	-----	
Sladqa-0201	-----	-----	-----	-----	-----	
Sladqa-0101	i-----	-----s	-----	-.k-----	-----	
Sladqa-0103	i-----	-----s	-----	-.k-----	-----	
Sladqa-0102	i-----	-----s	-----	-.k-----	-----	
Consensus	MLGQPNTLIC	HVDNIFPPVI	NITWLKNGHS	VTEGFSETSF	LSKNDHSFLK	
	151					200
Sladqa-02021	-----	-----	-----	-----	-----	
Sladqa-02022	-----	-----	-----	-----	-----	
Sladqa-02023	-----	-----	-----	-----	-----	
Sladqa-0201	-----	-----	-----	-----	-----	
Sladqa-0101	-----	-----	-----	-----	-----	
Sladqa-0103	-----	-----	-----	-----	-----	
Sladqa-0102	-----	-----	-----	-----	-----	
Consensus	ISYLTFLPSD	DDFYDCKVEH	WGLDKPLLKH	WEPEIPAPMS	ELTETVVCAL	
	201			232		
Sladqa-02021	-----	-----	-----	--		
Sladqa-02022	-----	-----	-----	--		
Sladqa-02023	-----	-----	-----	--		
Sladqa-0201	-----	-----	-----	--		
Sladqa-0101	-----	-----	-----	--		
Sladqa-0103	-----	-----	-----	--		
Sladqa-0102	-----	-----	1-----	--		
Consensus	GLIVGLVGIV	VGTVEIIQGL	RSGGFSRHOG	SL		

Group 01 is 231 amino acids (deletion at 132) and Group 02 is 232 amino acids

Amino Acid Sequences of SLA-DQA Alleles



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FIGURE 30

	1					50
Sladqb-D	-----v	---g---y-	-----ws-d	-----fl-	-----m-y-	
Sladqb-D2	-----f	---g---y-	-----ws-d	-----fl-	-----m-y-	
Sladqb-XA	-----	-----	-----g	wv-----	-----	
Sladqb-Z	-----	-----y	-----l	wv--r----	-----	
Sladqb-W	-----	-----	-----l-t	-----ya-	-----y-	
Sladqb-T	-----	-----	-----llt	-----	-----n--y-	
Sladqb-Y	-----	---g-----	-----h-t	-----	-----	
Sladqb-C	-----f	---g---y-	-----g	-----l	-----	
Consensus	GRDSPQDFVY	QFKFECYFFN	GTQRVR-VAR	YIYNQEEHVR	FDSDVGEFRA	
	51					100
Sladqb-D	-----	-l---ea-	-----	-----	-----	
Sladqb-D2	-----	-l---ea-	-----	-----	-----	
Sladqb-XA	-----t-	-----	-----v-	-----	-----	
Sladqb-Z	-----	-----e-	-----	-----	-----	
Sladqb-W	-----a-	---s--i-	-t-----	-----	-----	
Sladqb-T	-----	-----	-t-----	-----	-----	
Sladqb-Y	-----	-----f-	-t-----	-----	-----	
Sladqb-C	-----e-	s--s-	-m--v-r-	-----	-----	
Consensus	VTPLGRPDAD	YWNGQKDVLE	QKRAELDTVC	KHNYQIEEGT	TLQRRVQPTV	
	101					150
Sladqb-D	-----	-----	-----	-----	-----	
Sladqb-D2	-----	-----	-----	-----	-----	
Sladqb-XA	-----	-----	-----	-----	-----	
Sladqb-Z	-----	-----	-----	-----	-----	
Sladqb-W	-----	-----	-----	-----	-----	
Sladqb-T	-----	-----	-----	-----	-----	
Sladqb-Y	-----	-----	-----	-----	-----	
Sladqb-C	-----	-----	-----	-----	-----	
Consensus	TISFSKAEAL	NHHNLLVCAV	TDFYPSQVKV	QWFRNGQEET	AGVVSTPLIR	
	151					200
Sladqb-D	-----	-----	-----	-----	-----	
Sladqb-D2	-----	-----	-----	-----	-----	
Sladqb-XA	-----	-----	-----	-----n-----	-----	
Sladqb-Z	-----	-----	-----	-----	-----	
Sladqb-W	-----	-----	-----	-----	-----	
Sladqb-T	-----	-----	-----	-----	-----	
Sladqb-Y	-----	-----	-----	-----	-----	
Sladqb-C	-----	-----	-----	-----n-----	-----	
Consensus	NGDWTYQVLV	MLEMNLQRGD	VYTCRVEHSS	LQSPILVEWR	AQSESAQSKM	
	201					230
Sladqb-D	-----	-----	-----	-----	-----	
Sladqb-D2	-----	-----	-----	-----	-----	
Sladqb-XA	-----	-----	-----	-----	-----	
Sladqb-Z	-----	-----	-----	-----	-----	
Sladqb-W	-----	-----	-----	-----	-----	
Sladqb-T	-----	-----	-----	-----	-----	
Sladqb-Y	-----	-----	-----	-----	-----	
Sladqb-C	-----	-----	-----	-----	-----	
Consensus	LSGVGGFVLG	LIFLGLGLFI	RHRSQKGLVR			

Amino Acid Sequences of SLA-DQB Alleles



FIGURE 31

Nucleotide and Amino Acid Sequences of ILT3

1 atgatccccaccttcacggctctgctctgctcgggctgagtctg
M I P T F T A L L C L G L S L
46 ggccccaggacccacatgcaggcaggccccctcccaaacccacc
G P R T H M Q A G P L P K P T
91 ctctgggctgagccaggctctgtgatcagctgggggaactctgtg
L W A E P G S V I S W G N S V
136 accatctggtgtcaggggaccctggaggctcgggagtaccgtctg
T I W C Q G T L E A R E Y R L
181 gataaagaggaaagcccagcaccctgggacagacagaacccactg
D K E E S P A P W D R Q N P L
226 gagcccaagaacaaggccagattctccatcccatccatgacagag
E P K N K A R F S I P S M T E
271 gactatgcaggagataccgctgttactatcgagccctgtaggc
D Y A G R Y R C Y Y R S P V G
316 tgggtcacagcccagtgacccccctggagctggtgatgacaggagcc
W S Q P S D P L E L V M T G A
361 tacagtaaaccacccctttcagccctgccgagtcctcttgtgacc
Y S K P T L S A L P S P L V T
406 tcaggaaagagcgtgaccctgctgtgtcagtcacggagcccaatg
S G K S V T L L C Q S R S P M
451 gacactttccttctgatcaaggagcgggacagcccatccccctactg
D T F L L I K E R A A H P L L
496 catctgagatcagagcacggagctcagcagcaccaggctgaattc
H L R S E H G A Q Q H Q A E F
541 cccatgagtcctgtgacctcagtgacggggggacctacaggtgc
P M S P V T S V H G G T Y R C
586 ttcagctcacacggcttctccactacctgctgtcacacccccagt
F S S H G F S H Y L L S H P S
631 gacccccctggagctcatagtctcaggatccttggagggtcccaag
D P L E L I V S G S L E G P R
676 ccctcaccacacaaggctccgtctcaacagctgcaggccctgaggac
P S P T R S V S T A A G P E D
721 cagccccctcatgcctacagggctcagtcacccacagtggtctgaga
Q P L M P T G S V P H S G L R
766 aggcactgggaggtactgatcggggtcttgggtggtctccatcctg
R H W E V L I G V L V V S I L
811 cttctctccctcctcctcttctcctcctcccaactggcgctcag
L L S L L L F L L L Q H W R Q
856 ggaaaacacaggacattggcccagagacaggctgatttccaacgt
G K H R T L A Q R Q A D F Q R
901 cctccaggggctgccgagccagagcccaaggacgggggcctacag
P P G A A E P E P K D G G L Q
946 aggaggtccagcccagctgctgacgtccagggagaaaacttctgt
R R S S P A A D V Q G E N F C
991 gctgccgtgaagaacacacagcctgaggacgggggtggaaatggac
A A V K N T Q P E D G V E M D
1036 actcgagccacacagatgaagacccccaggcagtgacgtatgcc
T R S P H D E D P Q A V T Y A
1081 aaggtgaaacactccagacctaaggagagaaatggcctctcctccc
K V K H S R P R R E M A S P P
1126 tccccactgtctggggaattcctggacacaaaggacagacaggca
S P L S G E F L D T K D R Q A
1171 gaagaggacagacagatggacactgaggctgctgcatctgaagcc
E E D R Q M D T E A A S E A
1216 ccccaggatgtgacctacgccagctgcacagctttaccctcaga
P Q D V T Y A Q L H S F T L R
1261 cagaaggcaactgagcctcctccatcccaggaaggggcctctcca
Q K A T E P P P S Q E G A S P
1306 gctgagcccagtgcttatgccactctggccatccactaa 1344
A E P S V Y A T L A I H



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FIGURE 32A

Nucleotide and Amino Acid Sequences of ILT4

1 atg acccccatcgtcacagtcctgatctgtctcgggctgagtcctg
M T P I V T V L I C L G L S L
46 ggccccaggaccgcgtgcagacagggaccatccccaagccacc
G P R T R V Q T G T I P K P T
91 ctgtgggctgagccagactctgtgatcaccaggggagtcctcgtc
L W A E P D S V I T Q G S P V
136 accctcagttgtcaggggagccttgaagcccaggagtagcgtcta
T L S C Q G S L E A Q E Y R L
181 tatagggagaaaaaatcagcatcttggattacacggatacagacca
Y R E K K S A S W I T R I R P
226 gagcttgtgaagaacggccagttccacatcccatccatccatcgtg
E L V K N G Q F H I P S I T W
271 gaacacacagggcgatatggctgtcagtattacagccgcgctcgg
E H T G R Y G C Q Y Y S R A R
316 tggctctgagctcagtgacccccctgggtgctgggtgatgacaggagcc
W S E L S D P L V L V M T G A
361 tacccaaaacccaccctctcagcccagcccagccctgtgggtgacc
Y P K P T L S A Q P S P V V T
406 tcaggaggaagggtgaccctccagtgtagtcacaggtggcattt
S G G R V T L Q C E S Q V A F
451 ggcggttctattctgtgtaagggaaggagaagatgaacaccacaa
G G F I L C K E G E D E H P Q
496 tgctgaactcccagcccatgcccgtgggtcgtcccgccgcatc
C L N S Q P H A R G S S R A I
541 ttctccgtgggccccgtgagcccgaatcgaggtgggtcgacagg
F S V G P V S P N R R W S H R
586 tgctatgggttatgacttgaactctccctatgtgtggtcttccacc
C Y G Y D L N S P Y V W S S P
631 agtgatctcctggagctcctggtcccaggtgtttctaagaagcca
S D L L E L L V P G V S K K P
676 tcactctcagtgacgcccgtcctgtcatggcccctggggaaagc
S L S V Q P G P V M A P G E S
721 ctgaccctccagtggtctctgatgtcggctatgacagatttggt
L T L Q C V S D V G Y D R F V
766 ctgtacaaggagggggaacgtgaccttcgccagctccctggccgg
L Y K E G E R D L R Q L P G R
811 cagccccaggctgggctctcccaggccaacttcaccctgggccc
Q P Q A G L S Q A N F T L G P
856 gtgagccgctcctacggggccagtagatgctacgggtgcacac
V S R S Y G G Q Y R C Y G A H
901 aacctctcctctgagtgctcggccccagcgacccccctggacatc
N L S S E C S A P S D P L D I
946 ctgatcacaggacagatccgtggcacacccttcattctcagtgacg
L I T G Q I R G T P F I S V Q
991 ccaggccccacagtggtcctcaggagagaacgtgacccctgtgtgt
P G P T V A S G E N V T L L C
1036 cagtcatggcggcagttccacactttccttctgaccaaggcgga
Q S W R Q F H T F L L T K A G
1081 gcagctgatgccccactccgtctaagatcaatacagaatatacct
A A D A P L R L R S I H E Y P
1126 aagtaccaggctgaattcccatgagtcctgtgacctcagccac
K Y Q A E F P M S P V T S A H
1171 gcggggacctacaggtgctacgggtcactcaactccgaccctac
A G T Y R C Y G S L N S D P Y

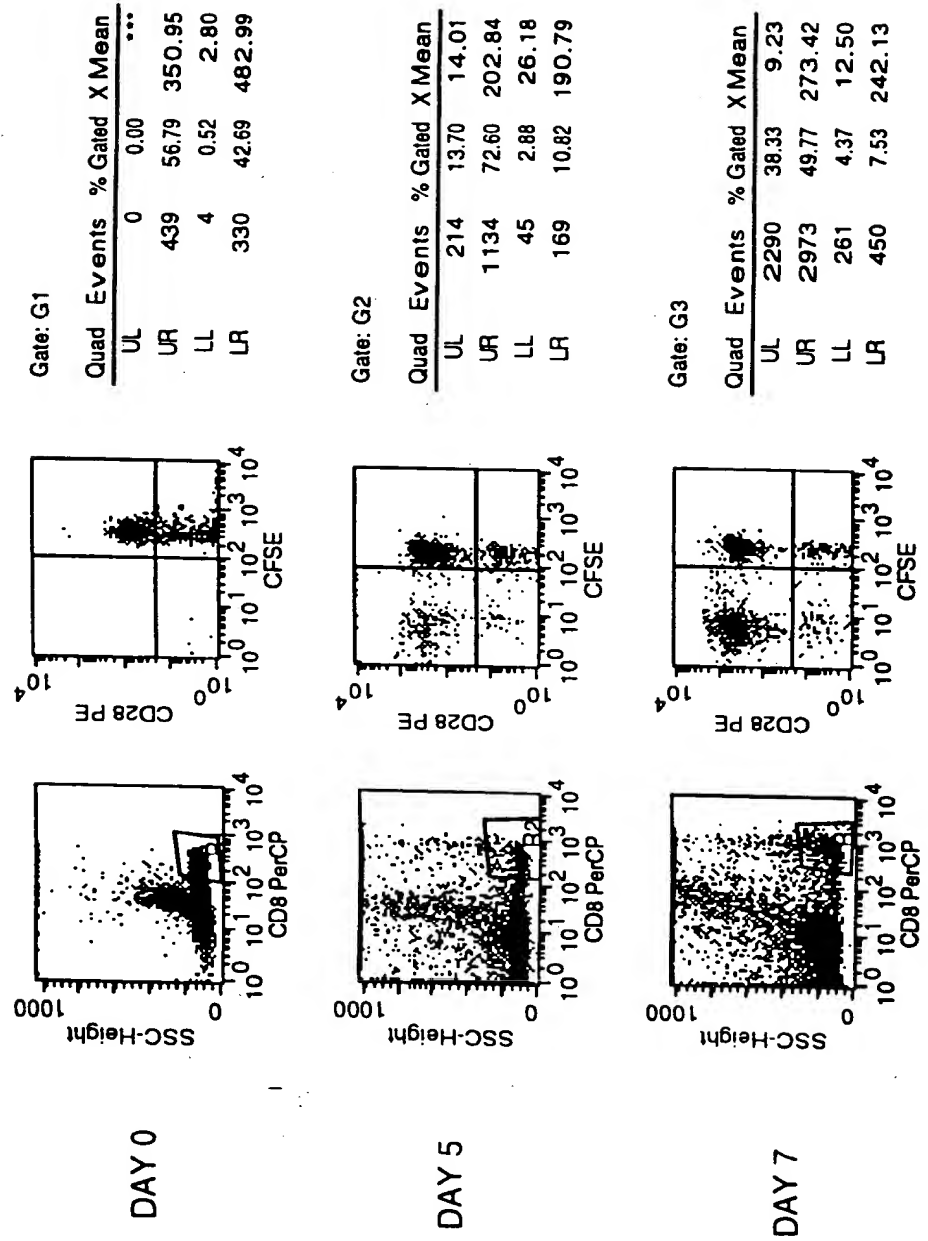


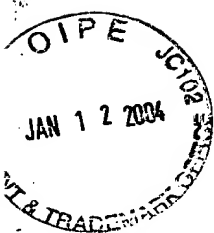
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FIGURE 32B

1216 ctgctgtctcaccgccagtgagccctggagctcgtgggtctcagga
L L S H P S E P L E L V V S G
1261 ccctccatgggttccagccccccaccaccgggtcccatctccaca
P S M G S S P P P T G P I S T
1306 cctggccctgaggaccagccctcacccccactgggtcggatccc
P G P E D Q P L T P T G S D P
1351 caaagtgggtctgggaaggcacctgggggttgatcggcatttg
Q S G L G R H L G V V I G I L
1396 gtggccgtcgtcctactgctcctcctcctcctcctccttctc
V A V V L L L L L L L L L L F L
1441 atcctccgacatcgacgtcagggcaaactggacatcgacccag
I L R H R R Q G K H W T S T Q
1486 agaaaggctgatttccaacatcctgcaggggctgtggggccagag
R K A D F Q H P A G A V G P E
1531 cccacagacagaggcctgcagtggaggtccagcccagctgccgac
P T D R G L Q W R S S P A A D
1576 gcccaggaagaaaacctctatgctgccgtgaaggacacacagcct
A Q E E N L Y A A V K D T Q P
1621 gaagatgggggtggagatggacactcgggctgctgcatctgaagcc
E D G V E M D T R A A A S E A
1666 ccccaggatgtgacctacgccagctgcacagcttgaccctcaga
P Q D V T Y A Q L H S L T L R
1711 cggaaggcaactgagcctcctccatcccaggaagggaacctcca
R K A T E P P P S Q E R E P P
1756 gctgagcccagcatctacgccaccctggccatccactag 1794
A E P S I Y A T L A I H

FIGURE 33

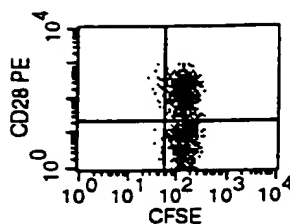




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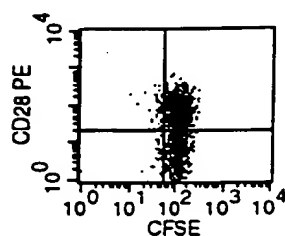
FIGURE 34

0 HR



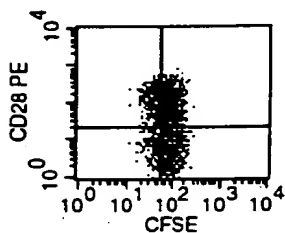
Quad	Events	% Gated	X Mean
UL	18	1.36	40.96
UR	737	55.62	143.24
LL	10	0.75	47.01
LR	560	42.26	151.29

48 HR
+APC



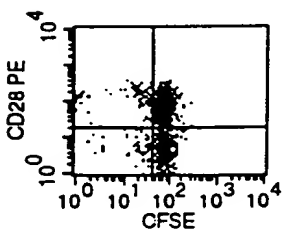
Quad	Events	% Gated	X Mean
UL	53	2.86	42.38
UR	1212	65.48	122.49
LL	23	1.24	41.38
LR	563	30.42	121.41

48 HR
+APC+IL2



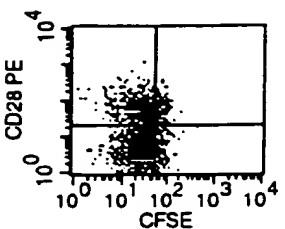
Quad	Events	% Gated	X Mean
UL	645	19.00	39.93
UR	1382	40.72	95.07
LL	311	9.16	40.05
LR	1056	31.11	101.61

72 HR
+APC



Quad	Events	% Gated	X Mean
UL	114	9.19	27.62
UR	711	57.34	78.27
LL	57	4.60	24.32
LR	358	28.87	83.25

72 HR
+APC+IL2



Quad	Events	% Gated	X Mean
UL	2911	30.97	28.62
UR	717	7.63	76.38
LL	4965	52.83	29.50
LR	805	8.57	74.95



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FIGURE 35A

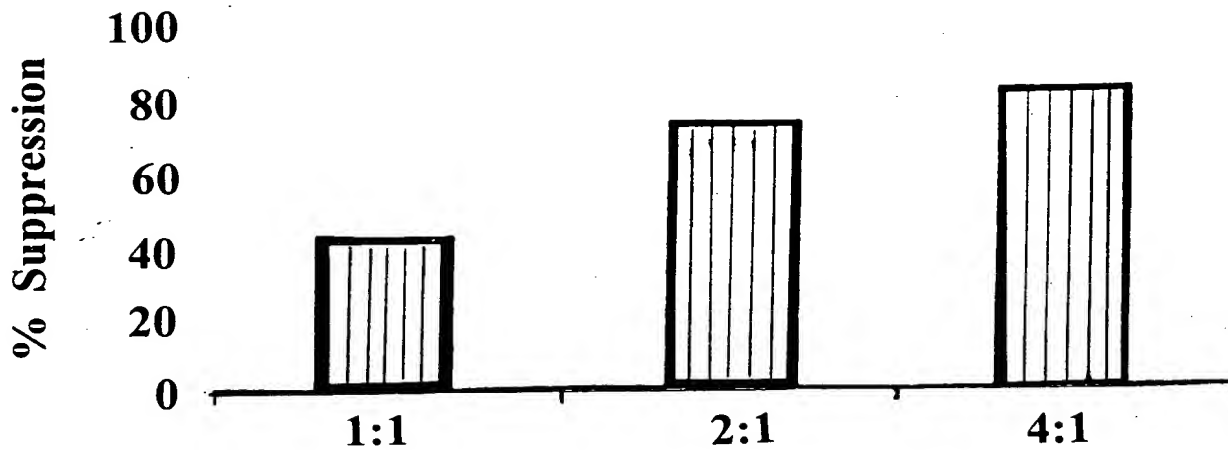


FIGURE 35B

